



FLYING ACES

Club News

ISSUE #150-76
Mar./April 1993

2.

NEWS ON THE WING!

Let's start this issue by welcoming three new members to the "Order of the Pour le Merite", A.K.A. the "Blue Max". These gallant FACers have achieved sixteen victories in Flying Aces competition. Hats off to John Blair, Paul Helman and Ted Langley. Their Blue Max medals will be awarded to them shortly.

In this issue you will find the latest "Kanone" list as presented by Roy Courtney. If you do not agree with your total of wins then rather than get on Roy's back, maybe you should get after your contest director for not submitting the results to Roy!

We want to thank ,once again, Bob Rogers, for another nice cover drawing and to all of the Gang that contributed to this issue. We need your input! Dave Stott has sent in another series of articles that is bound to get more of you Skysters into the air. This one is titled "What Color Was It?" This one covers color schemes for Golden Age aircraft and will run for at least 5 or 6 issues.

We want to extend our congratulations to Bill Glick of Fremont, Ca. on becoming our 1100th member. Thanks to all you Clubsters out there spreading the FAC Gospel we continue to grow.

The ruling banning geared motors in mass launch events that was announced in the last issue has met with nothing but positive comments, even the Glue Guru's column has comments on it.

Our plea for winding stooge drawings was very successful. We must have about a dozen of them by now and we will be presenting them to you as space permits starting with this issue. Thanks to all who responded.

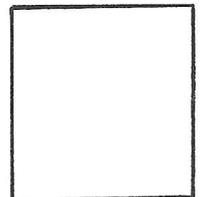
Now on to the two big FAC Contests this year. We have entry forms for both the Geneseo, NY contest and the contest at Muncie, Ind. in this issue. Please send your entries in as soon as possible so as to cut down on the workload as the contests get near. And for that we thank you in advance. We are getting a bonus this year at the Geneseo contest. There will be a Stearman Fly-In on the weekend that we will be there so don't forget to bring your cameras for some great color schemes for your files. Also, some lucky FACer is going to win a ride in the Taylorcraft L-2. We also expect to have other prizes to raffle off. We still haven't heard from anyone on the idea of a workshop at the contest in Geneseo. If you are interested please advise GHQ what subjects that you would like to see covered and we'll see what we can do. I have mentioned it to some of our more creative members and they are willing to participate. So let's have your input.

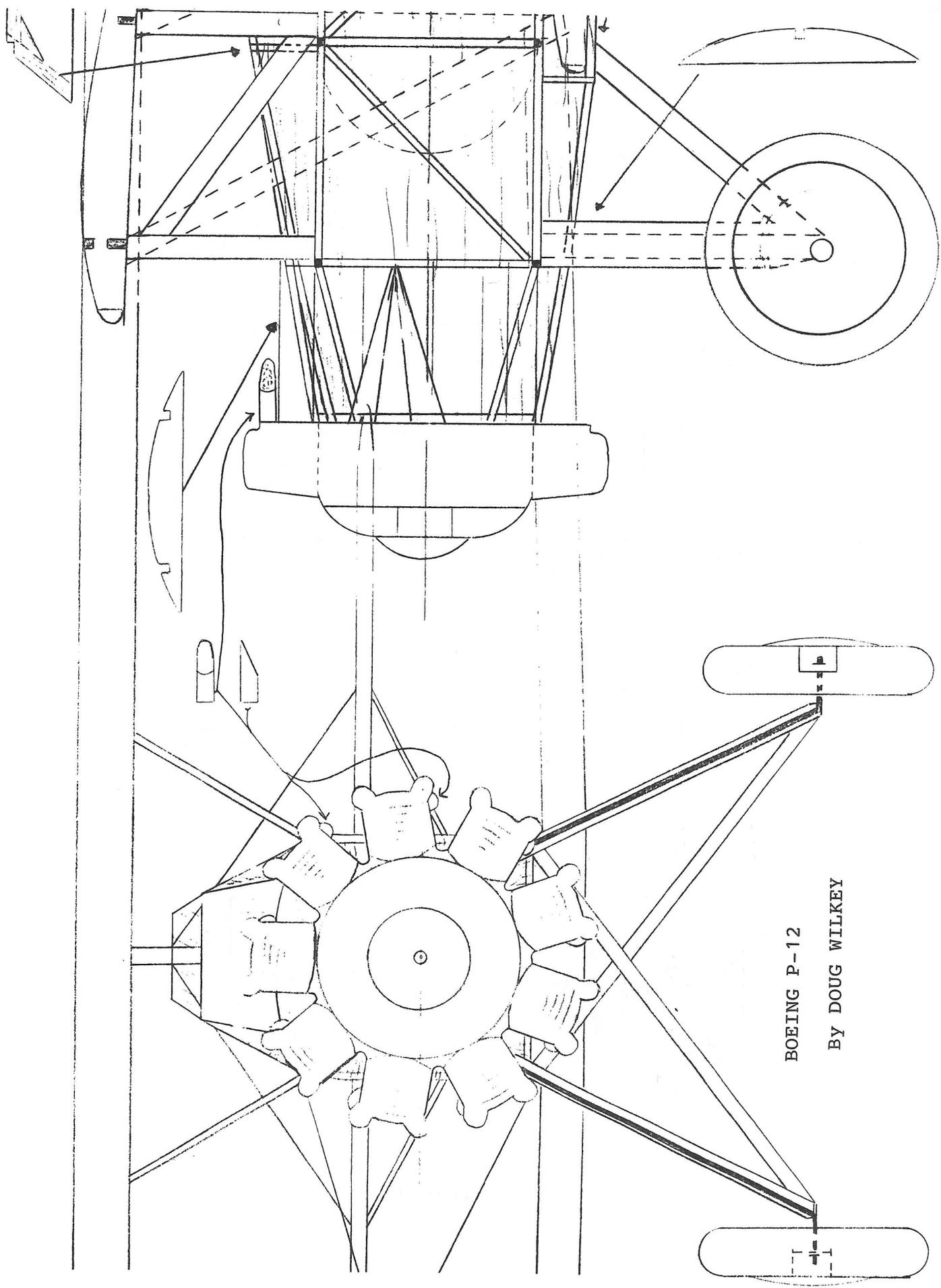
GHQ is looking for two more members who have moved and left no forwarding address. If you can help us locate Jeff Ladner, last address, 1812 London Lane #615, Arlington, Tex. 76017 and William Hamrick, 210 Taylor St. Apt. 307, Crooksville, Ohio 43731.

For a list of Flying Aces Squadrons send a S.A.S.E. to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506. There may be a squadron in your area. If not, maybe you would like to start one! Drop a note to GHQ for details.

BUILD....FLY....WIN!!!! EFF--AAA-CEEE!!!!
Lt. Col. Lin Reichel, CinC-FAC

If the box on the right has the dreaded RED "X" in it, it is time to renew your membership which includes the newsletter. Cost is \$9.00 per year in the United States and Canada. Overseas the cost is \$15.00 per year. Six issues per year published every other month. This is your last issue under your old membership. Please make checks payable to "Flying Aces". Send to FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.





BOEING P-12
BY DOUG WILKEY

* Mass Launch Gear Ban *
 Mumbo Jumbo #55 from the pen of the Glue Guru
 * * * * *

Salutations, disciples! Today let us consider the Cols' decision to ban geared entries from mass launch events; a move bound to result in much weeping among the troops. Why this curious ruling? My guess follows.

There are but two ways to dramatically boost duration: (1) build light, and (2) use much rubber. Other approaches, say carving a new and better prop, may indeed help, but can't offer the potential gains available from (1) and (2). Within this context, gears may be considered as a category under (2), enabling the packaging of enormous amounts of rubber in a safe manner (externally wound) complete with a motor stick. Properly done, a 90 second motor run can be made practical.

Techniques (1) and (2) have been pressed hard over the years. In WWII, as an example, winning duration times have moved from about 45 seconds a decade ago, to 90 seconds today. While we are pledged to the cause of duration, it must be admitted that 90 seconds brings its own problems.

Given 90 seconds, even a light breeze, say 10 feet per second, will carry any model, circling or not, some 900 feet away. Trudging one-sixth of a mile out, and then back again to effect recovery is not only wearisome, but dangerous as well, when done on a hot day by modelers of a certain age. Then there is the issue of a suitable home field to provide tune-up. Few of us have 90 second fields - are future winners to be limited to those few?

Yes, too much duration has nuisance aspects; the desire to limit the stuff is understandable. Especially so, given the ghost model problem fathered by (1).

A ghost model is one whose relationship to any real prototype is vague and suspect. The usual ghost model is one whose "simplified" contours permit drastic lightening of what would otherwise be a weighty structure. We each do a certain amount of this and so it's difficult to cast stones, but it must be said that a great many winning scale models bear amazingly little resemblance to their declared source. There actually are four longeron stick jobs out there posing as WWII combat aircraft, with the front end rounded a bit and the back end simply squared off. Disgusting!

What is to be done? To hold down duration, steps against (1) or (2) are required. Any (1) action is difficult, for the area is too fraught with subjective factors. Unfortunately, (2) prevention is simple: anyone can detect gear presence. Hence mass launch gears are to go; regrettable, but perhaps inevitable.

Many of these columns have championed the cause of gears. They are marvelous gadgets, extending duration and permitting a smaller prop. We are still permitted the use of gears in FAC Scale and Jumbo events. Let us shrug at the strange ways of rules and continue our endeavors.

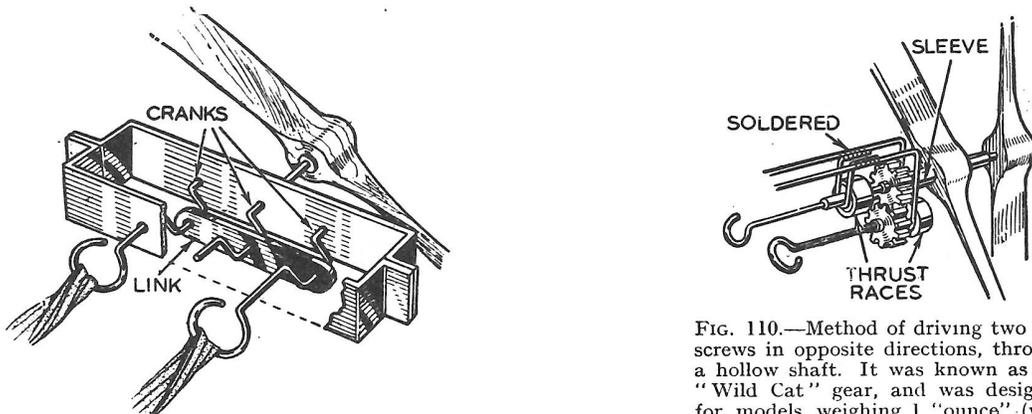
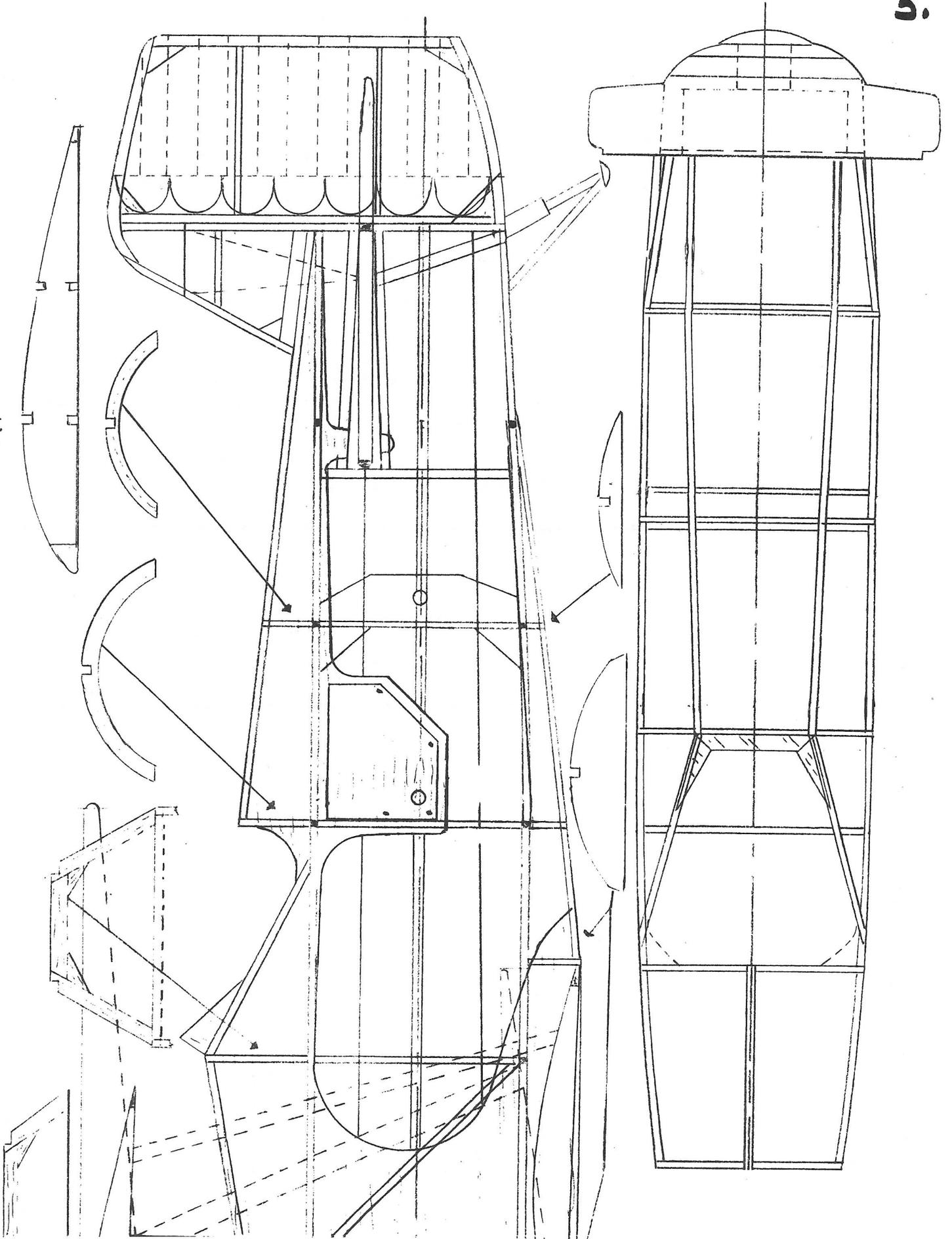


FIG. 110.—Method of driving two air-screws in opposite directions, through a hollow shaft. It was known as the "Wild Cat" gear, and was designed for models weighing 1 "ounce" (wild cat) or less by W. G. Aston.

From:
 "MODEL AEROPLANE HANDBOOK" BY F. J. CAMM

UPPER WING RIB



Peanut & No-Cal Scale Postal Meet

The Peanut and No-Cal Postal Contest continues. Show us what your crates can do! There are the usual four wings, Peanut Indoor, Peanut Outdoor, No-Cal Indoor and No-Cal Outdoor. To participate all you have to do is fly your model, record the times and send it in to GHQ along with the name of the model, the date you flew and the wing you are entering it in. Enter your model as many times as you wish, everytime you better your score send it in. Enter as many models as you wish also. There is no limit on entries. Contest times count too. The contest will end on May 30, 1993. Entries postmarked after May 31, 1993 will not be accepted.

BUILD...FLY...WIN...EFF--AAA--CEEE!!

OUTDOOR PEANUT

Pilot	Aircraft	Time
1. Dave Stott	Curt. Reid Courier	213 sec.
2. Darold Wilken	IS-4 Nikitin	116 "
3. Mike Hines	Nesmith Cougar	98 "
4. Jane Schlosberg	Nesmith Cougar	77 "
5. Mike Hines	Heinkel HE-100 V-8	71 "
6. Padre Anderson	Weedhopper	61 "
7. Mike Ransom	Davis DA-2A	57 "
8. George Bredehofs	Livingstone Monocoupe	55 "
9. Bob Schlosberg	Found	51 "
10. Dave Stott	Fairchild 24	40 "
11. Walt Farrell	Monocoupe 110	40 "
12. Walt Leonhardt	Nesmith Cougar	40 "
13. Darold Wilken	Fike	35 "

OUTDOOR NO-CAL

Pilot	Aircraft	Time
1. Dave Stott	Gwinn Aircar	980 sec.
2. Mark Fineman	Republic XP-69	221 "
3. George Bredehofs	T.E.A.M. Hi-Max	206 "
4. Dave Linstrum	Chester Goon	85 "
5. Paul Herbst	Mitsubishi Zero	78 "
6. Walt Leonhardt	Farman F-190	60 "
7. Jeff Row	Speed Spitfire	46 "
8. Walt Leonhardt	Lacey M-10	43 "
9. George Bredehofs	PBY Catalina	32 "

INDOOR PEANUT

Pilot	Aircraft	Time
1. Eric Anderson	Nesmith Cougar	120 sec.
2. Larry Kruse	Santos/Dumont 14-bis	96 "
3. Gene Smith	Stinson 125	94 "
4. Larry Kruse	TX-Air	77 "
5. Gene Smith	Piper Colt	67 "
6. Tommy Westlin	Fike	50 "

INDOOR NO-CAL

Pilot	Aircraft	Time
1. Gene Smith	Cassutt Racer	218 sec.
2. Larry Kruse	Cassutt Racer	201 "
3. George Lewis	Waterman Gosling	199 "
4. Dave Linstrum	Sukhoi SU-27	159 "
5. Mike Ransom	P-51D Mustang	123 "
6. Mike Ransom	Vought Kingfisher	95 "
7. Eric Anderson	Shinden	87 "
8. Graham McAllister	Grumman Avenger	75 "
9. George Bredehofs	Dayton/Wright RB-1	50 "
10. George Bredehofs	Yokasuka Ohka MXY-7	43 "

30th Anniversary Banquet

The Erie Model Aircraft Assn. invites all of you to their 30th Anniversary Banquet. Thirty years is a real milestone for a model club. Try to be there and help us celebrate.

The date.....April 17, 1993

The place....Lee Kontis Charcoal Pit

The time.....Happy Hour 6:00 pm. Dinner at 6:30 pm.

Menu.....Stuffed pork chops or stuffed chicken breast.

Price.....\$12.50 per person.

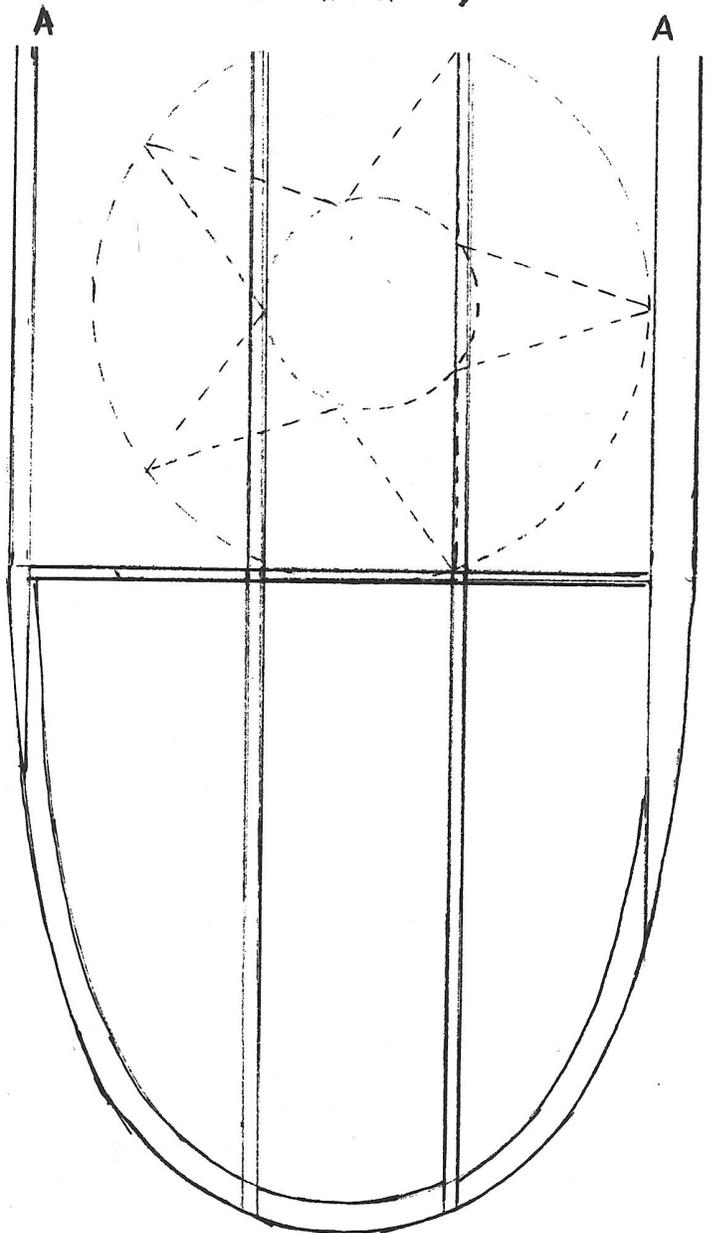
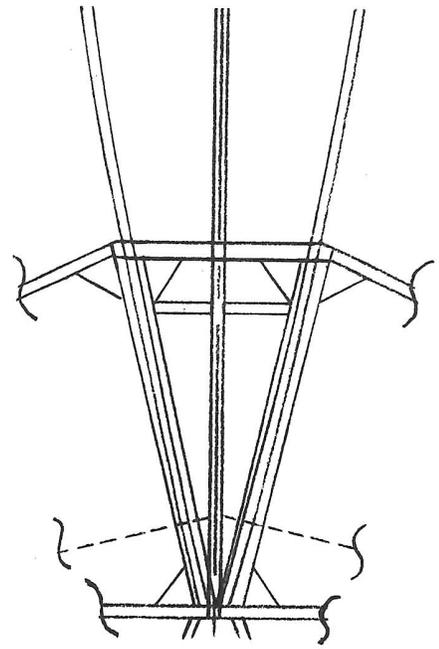
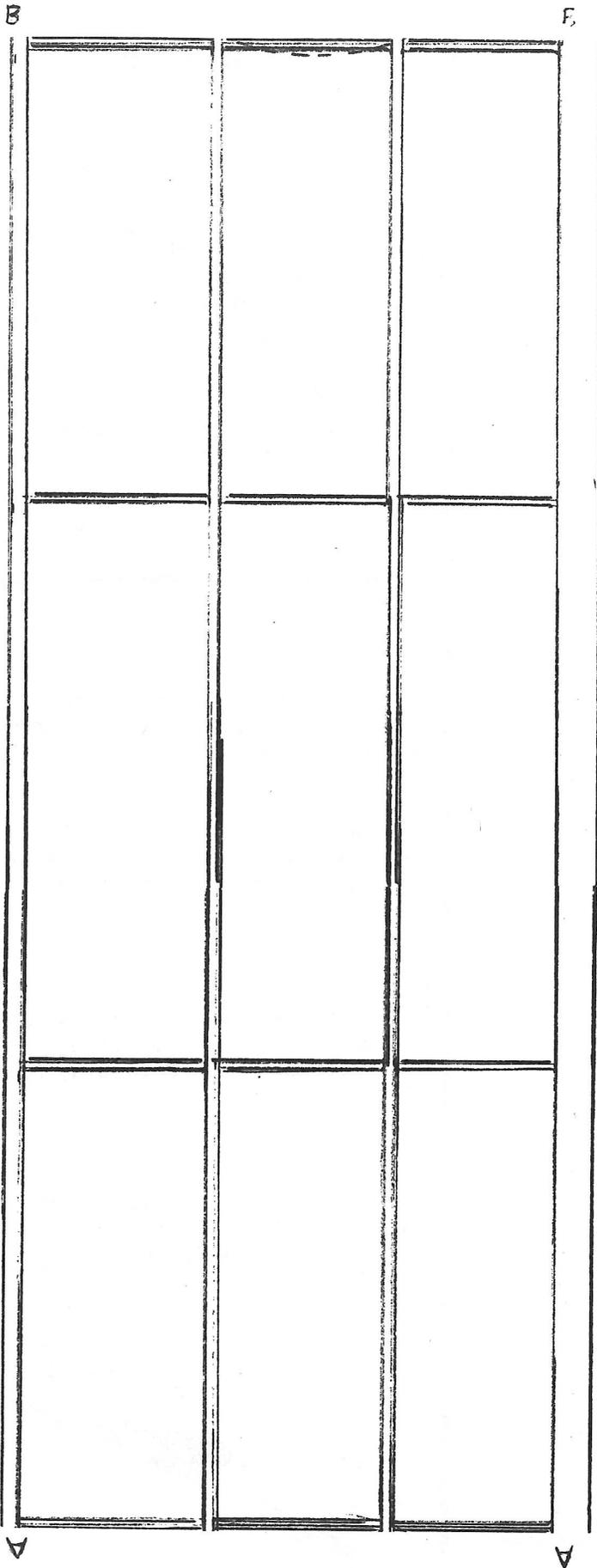
For reservations and directions to restaurant contact Vic Didelot, 4410 Lorna Lane, Erie, Pa. 16506 or phone (814) 838-3268 no later than April 12, 1993.

Guest speaker will be Lt. Col. Donald O'Hara, USAF, Ret. Lt. Col. O'Hara will tell us of some of his experiences as a B-52 pilot for the Strategic Air Command during the Cold War. Also on hand will be our old Buddy Earl Van Gorder. This should be a fun night, don't miss it.

For those wishing to stay overnight here is a near-by motel, Park Plaza Motel, 2510 West 8th St. Erie, Pa. (814) 833-9841.

S.O.S.--S.O.S.

Wanted; A construction article on how to build a box for shipping my models on an airline safely! Tom Hallman, 38 S. 17th St., Allentown, Pa. 18104. GHQ would also like to publish such an article. If anyone can do this we would appreciate it very much.



8.

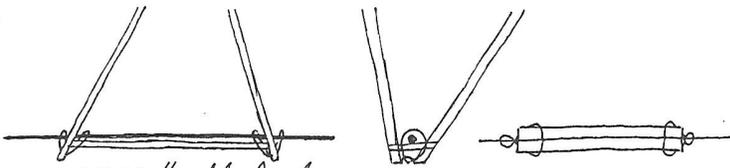
SHOCK ABSORBING LANDING GEAR

by Jake Larson

PART THREE

Loser #2 cont

#5

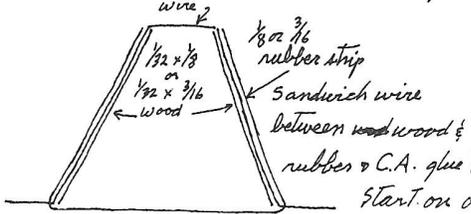


use small rubber bands
or elastic thread &
wrap in figure 8

Pros: Good Scale. Good up travel
Fair Fore/Aft travel.

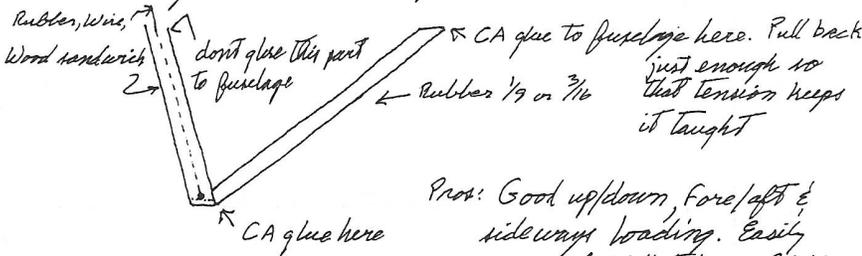
Cons: No Sideways Travel. Hard
to repair on small models
or if you use rubber bands

"Sneaky BUT it Works" Dept.



Start on one side. Pull on rubber
enough that flex of wire keeps
center rubber taught, then glue together other side

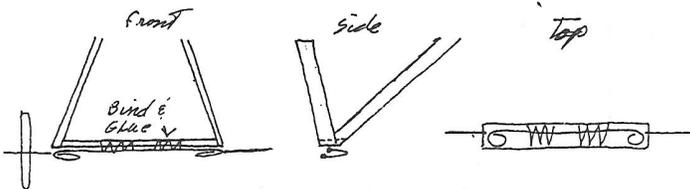
"Sneaky BUT it Works" Dept. Cont.



Pros: Good up/down, Fore/Aft &
sideways loading. Easily
repaired. Will take a GONZO
Crash

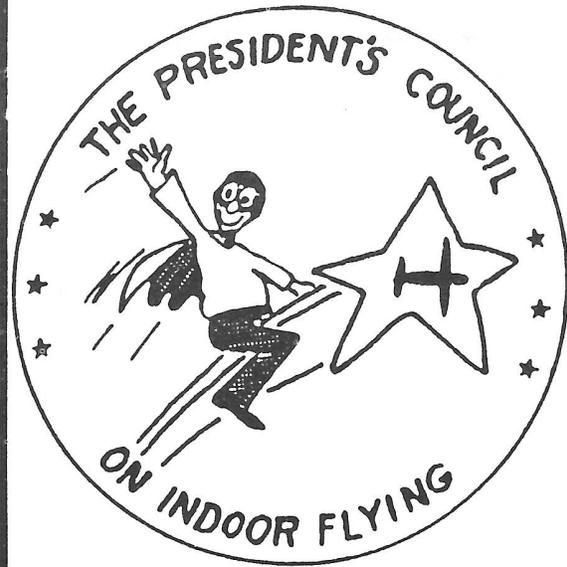
Cons: Paint won't stay on. The kind of
paint that does stay on, rots
the rubber. The rubber in
the center (spreader strut) may
sag after a while

#6



Note: The wheel axle should (must) be
at the BOTTOM of the Loop
otherwise, it won't work!!

Pros: Easy to hide.
Fairly good up/down
& fore/aft travel
Cons: No Sideways travel



by Paul McIlrath

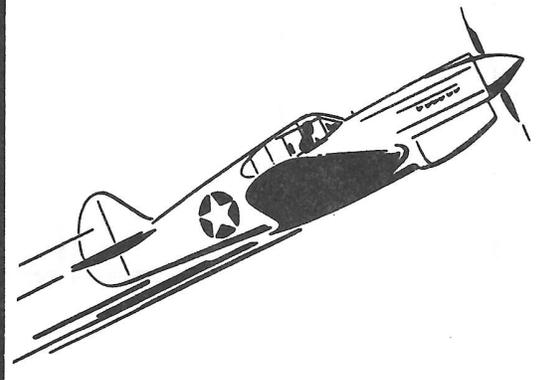
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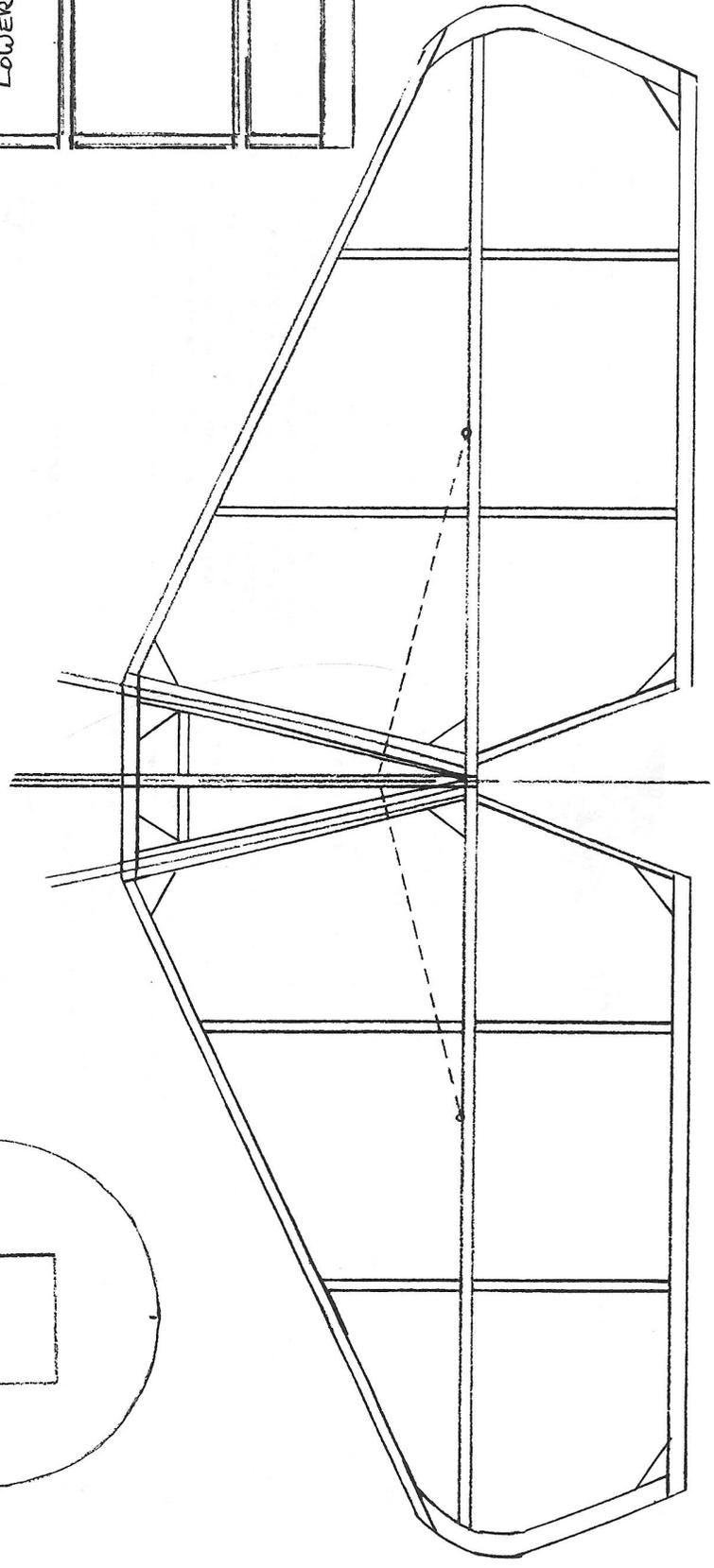
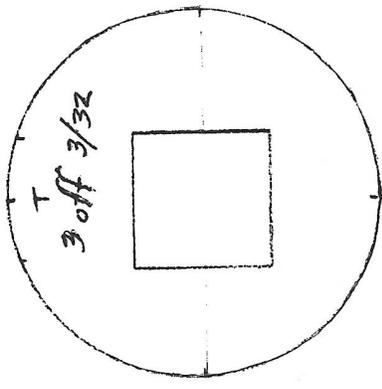
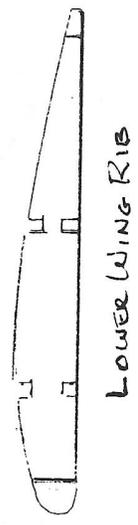
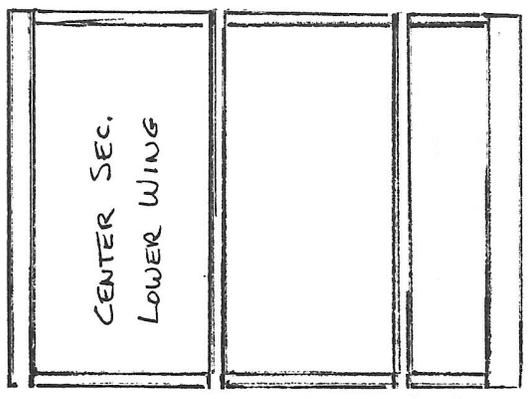
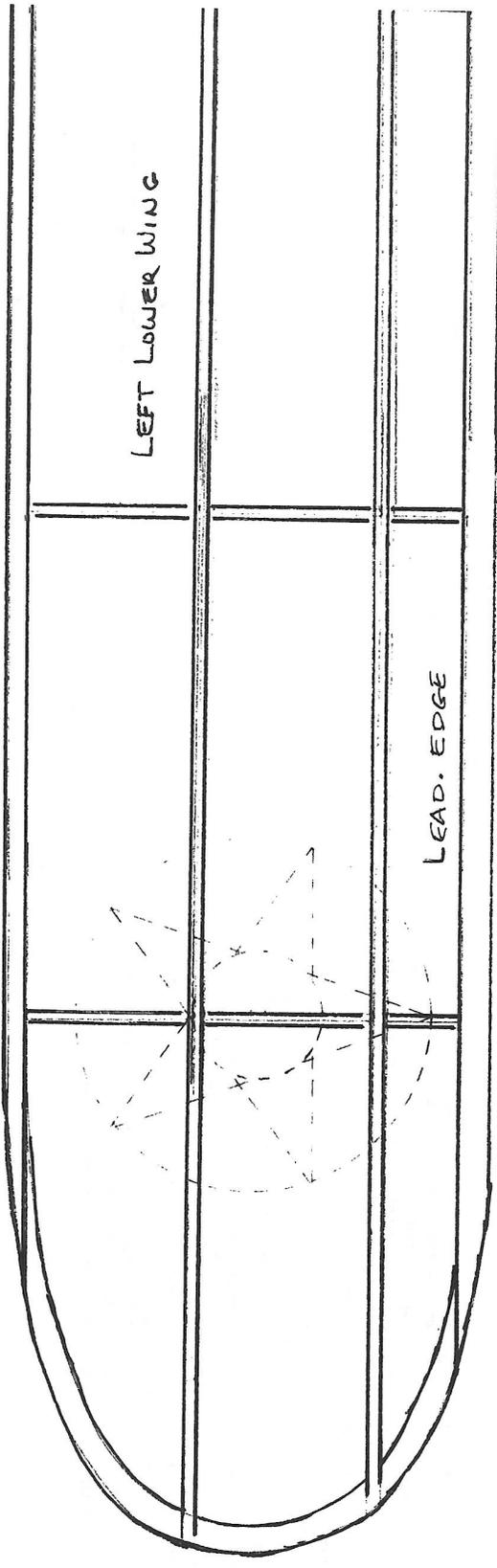
Wanted; Color scheme for the Fleet
Canuck, Lin Reichel, 3301 Cindy
Lane, Erie, Pa. 16506.

Doug Wilkey, 1977 Hwy. 270 W., Clay,
Ky. 42404 is looking for a three-
view/info for the Grumman F3F-2
2 seater.

Does anyone have any Pirelli rub-
ber that they want to part with.
If so, contact Sidney Gilbert,
955 Patterson Dr., Sarasota, Fla.
34234.

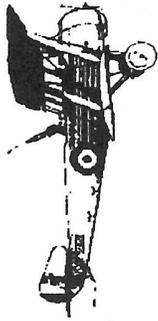
Bill Martin, 313 Chateaugay,
Chesterfield, Mo. 63017, is in
need of scale info-coloring,
etc. of the Fieseler Fi256.





SETTING UP A BIPLANE PART II

By Tuvinks Syzbeda



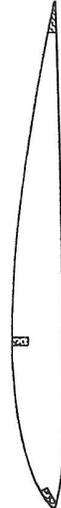
O.K. bipesters, having digested the reasoning behind using two wings, we can go on to drawing up a plan or re-drawing a kit plan to incorporate the decalage and other features to build a good flying biplane.

First off, it is a good idea to use a "real" airfoil, not just one off a french curve or old Megow plan. Pick one thinner than a Clark "Y." You don't need the strength of a deep spar ala a monoplane, one wing braces the other. One airfoil that has worked well is the Rhode St. Genese 26 in Figure 1. It has a very sharp leading edge to reduce drag. Yep, I know that wings with sharp leading edges are subject to abrupt stalls, but our decalage will take care of that.

Make a template of your chosen airfoil for top and bottom wings and trace them onto your plan so that you have no more than 1/2 degree of decalage. Incidence creates drag. We need it for decalage, but do not overdo it. To help you in drawing... 1 degree = 1/64 inch rise in a one inch distance.

Design the wings for one-piece construction. Build them flat, with no wash-in or wash-out. Also use the strut tie-in system illustrated in Figure 2. That is what the soft wire is for that we told you to get in part one of this article. This tie-in system allows a temporary fitting of the top wing to check alignment. Once glued up it is strong like a bull.

Design the aft end of the fuselage so there is space to change the stabilizer incidence. If your model's top wing is strut mounted to the fuselage (these are termed "cabane struts"), design and build a temporary pylon or box to position the wing above the fuselage. You might want to design in stops or keys on this jig so everything "nests" into position in a manner shown in Figure 3. Just tack glue this jig together, as you will probably destroy it to remove it. Above all, be sure you get the incidence angle the way you want it.



RHODE ST. GENESE 26

FIG. 1

you want it.

If your model has vertical bay struts, simply build them using the side view of your layout. However, if the bay struts are canted, you will have to project a true view as shown in Figure 4. Canted cabane struts should be laid out and built in a like manner. As a matter of fact, you may want to try laying out true views of all your struts, build them, and assembling the wings without going through the trouble of making that pylon, or box.

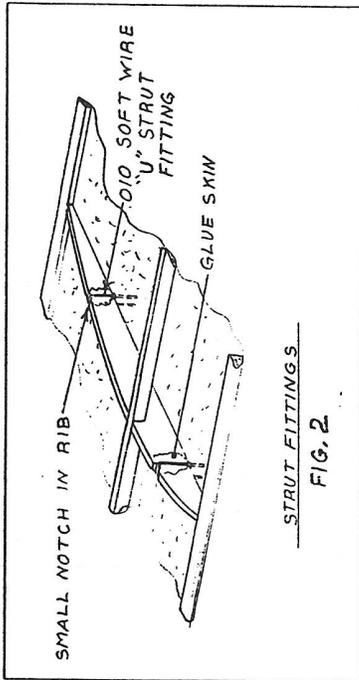
No matter which method you use, the top wing should be mounted temporarily at first by squeezing the ends of the wire loops against the struts with needle nose pliers. If things look pretty well lined up by eye-balling, smear some glue on the strut/wire area and let it dry. If you have to break the joint loose later for re-alignment, use a drop of acetone brushed on the glue skin and a pointed blade to pry it loose. Now, I know all of this is no piece of cake. You have to align that wing from the front, top, and side. It takes time, patience, delicate handling, and sometimes doing over again 'til it is right. The incidence angle should never be compromised.

To be sure of that incidence angle, and the decalage, arrange a temporary jig of books or whatever, to hold your model inverted. Place your lightweight level on the bottom surface of the lower wing near the root and shim

the aft part of the fuselage up or down to center the bubble. Check the entire span of the lower wing with the level. If you have done your work well, there should be no variation in the level reading.

Now put the level on the bottom surface of the top wing. If you have built in incidence, the bubble should move toward the trailing edge. By placing a shim of predetermined thickness on the wing at the lowest point of the camber nearest the leading edge, you can check the decalage. Remember, 1/64 (.016) rise in one inch of length equals 1 degree. Check the entire span thus. If there is some run-out adjust the length of the nearest strut to true up the wings.

Now you can position the stabilizer. Tack glue either the leading edge or



STRUT FITTINGS

FIG. 2

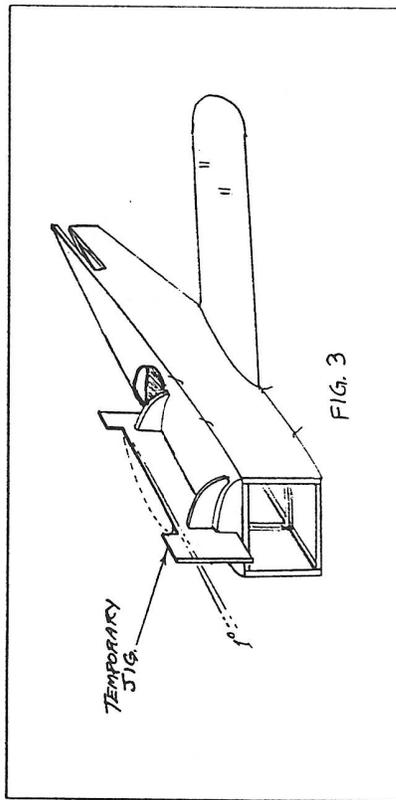


FIG. 3

the trailing edge, and pack the other with thin balsa shims to level its bottom surface in the same plane as the bottom surface of the lower wing.

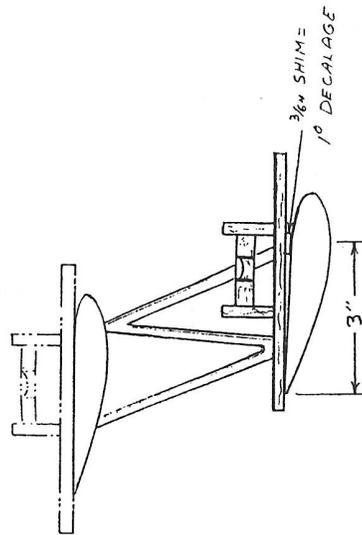


FIG. 5

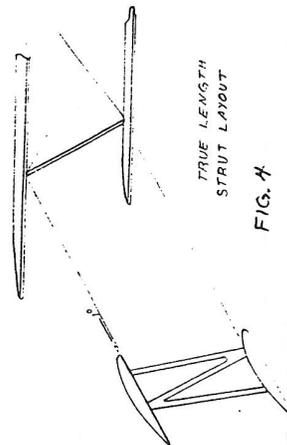


FIG. 4

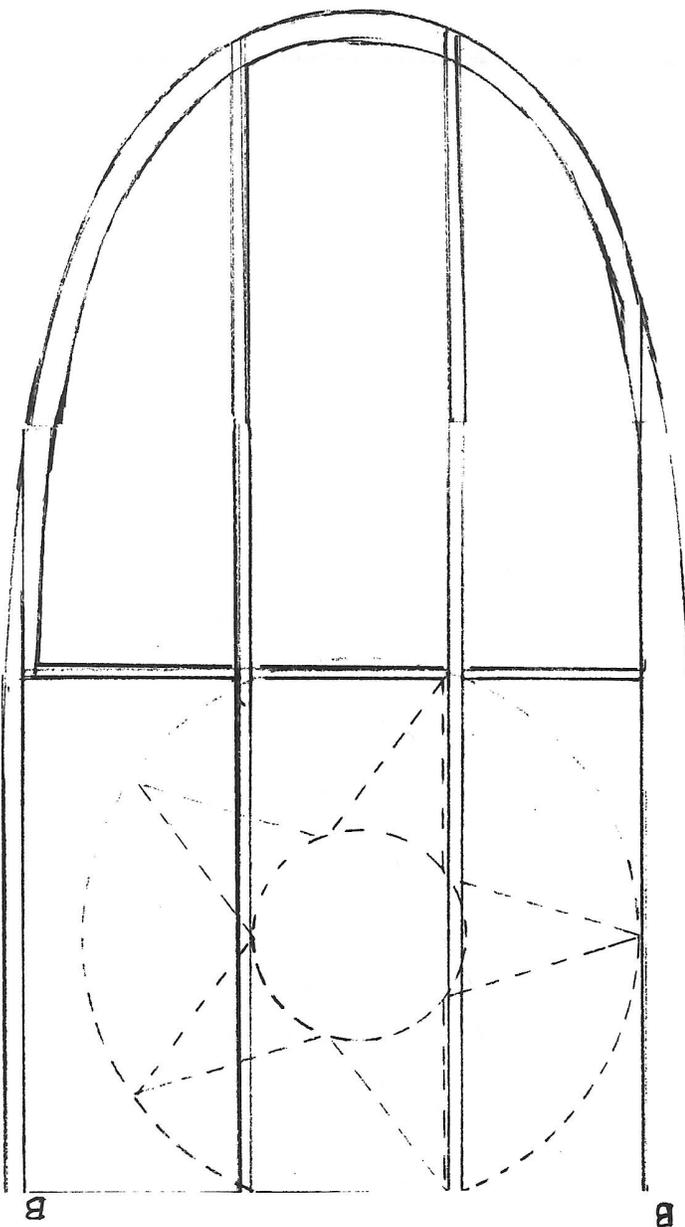
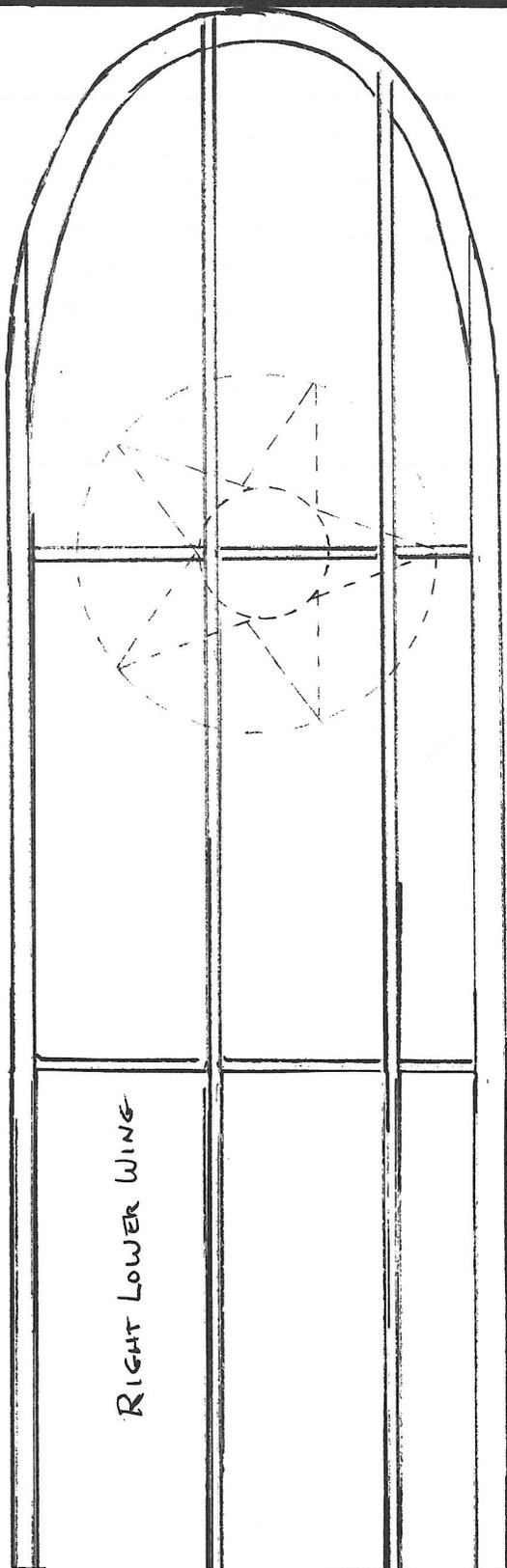
continued next page

Once you are satisfied with your wing assembly you can final glue the struts and wire fittings. Once the rigging threads are wrapped and glued around these joints you will have a very strong biplane whose wings will survive many a mishap. Do not final glue the stabilizer at this time. We may want to adjust it during our trim flights, which will be covered next time. [Editor's note: the final part of this series will appear in the next issue. Special thanks to Dave Stott for this and many other contributions to our newsletter.]

S.O.S.

Wanted by Rudy Kluiber, 2021 Lakeland Ave., Lakewood, Ohio, 44107, scale info on the Lemberger LD-206. Also looking for pistons or piston/cylinder assemblies for 049 Holland Hornet motors. Have Hornet parts or scale kits to trade.

Mike Ransom, 701 N. Grand, Okmulgee, Ok. 74447 wants to know why his No-Cal flies great to the left but straightens out and heads for the wall when only half of the turns are used up and the model is in a cruise mode?



12. S.O.S.--S.O.S.

Angus Orchard, 167 Main Rd. Speers Point, N.S.W. 2284 Australia is looking for a plan of the Fairchild "22" that appeared in the Flying Aces magazine way back in the 1930s. He will reimburse anyone for the cost of copying and postage.

John Blair writes to tell us that a plea for help really pays off in the FAC News. He received several copies of the Interstate Cadet plan he requested. Our Free Flight Family has got to be about the finest collection of "Good Guys" anywhere.

Dear Lin,

Re Dave Turnbuckle's biplane article: a much easier method of making the "Bubble Level" device is by gluing a readily available "Line Level" onto the 1/4" X 3/4" X 5" balsa stick. That's a one-step procedure, as opposed to Dave's Multi-operation method -- and probably cheaper too.

Joe Wagner

This article appeared in the last issue..ed. note.



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- Pen & Ink / Color Drawings / Acrylic Paintings
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Dave Linstrum Tampa (813) 972-8182

FOR FREE CATALOG/PRICES SEND #10 SASE: DAVE LINSTRUM 13609 24th ST. APT 9 TAMPA, FL. 33618 OR CALL ANYTIME

FLYING ACES OUTDOOR CHAMPS

Sept. 4-5, 1993

Time 8:30 am. til 4:00 pm.

AMA National Flying Site-----Muncie, Ind.

REGISTRATION FORM

Please print

Name _____ AMA No. _____
 Street _____ Jr/Sr _____ Open _____
 City _____ State _____ Zip _____

Entry fee \$20.00, please send before August 15, 1993.

Mail FAC entry fee directly to Lin Reichel, 3301 Cindy Lane, Erie, Pa. 16506.

Awards through third place. More places if advance entries warrant them.

All contestants must be members of the AMA or MAAC and sign waiver.

Schedule

Saturday Sept. 4th

- World War Two *
- FAC Scale
- Embryo Endurance
- Golden Age Military *
- Pioneer Scale
- Hi-Wing Peanut Scale
- FAC Old Time Rubber

Sunday Sept. 5th

- World War One *
- Greve/Thompson Races *
- FAC Power Scale
- Jumbo Scale
- FAC Peanut Scale
- Golden Age Scale
- FAC Old Time Rubber
- No-Cal Scale

* Mass Launch events.

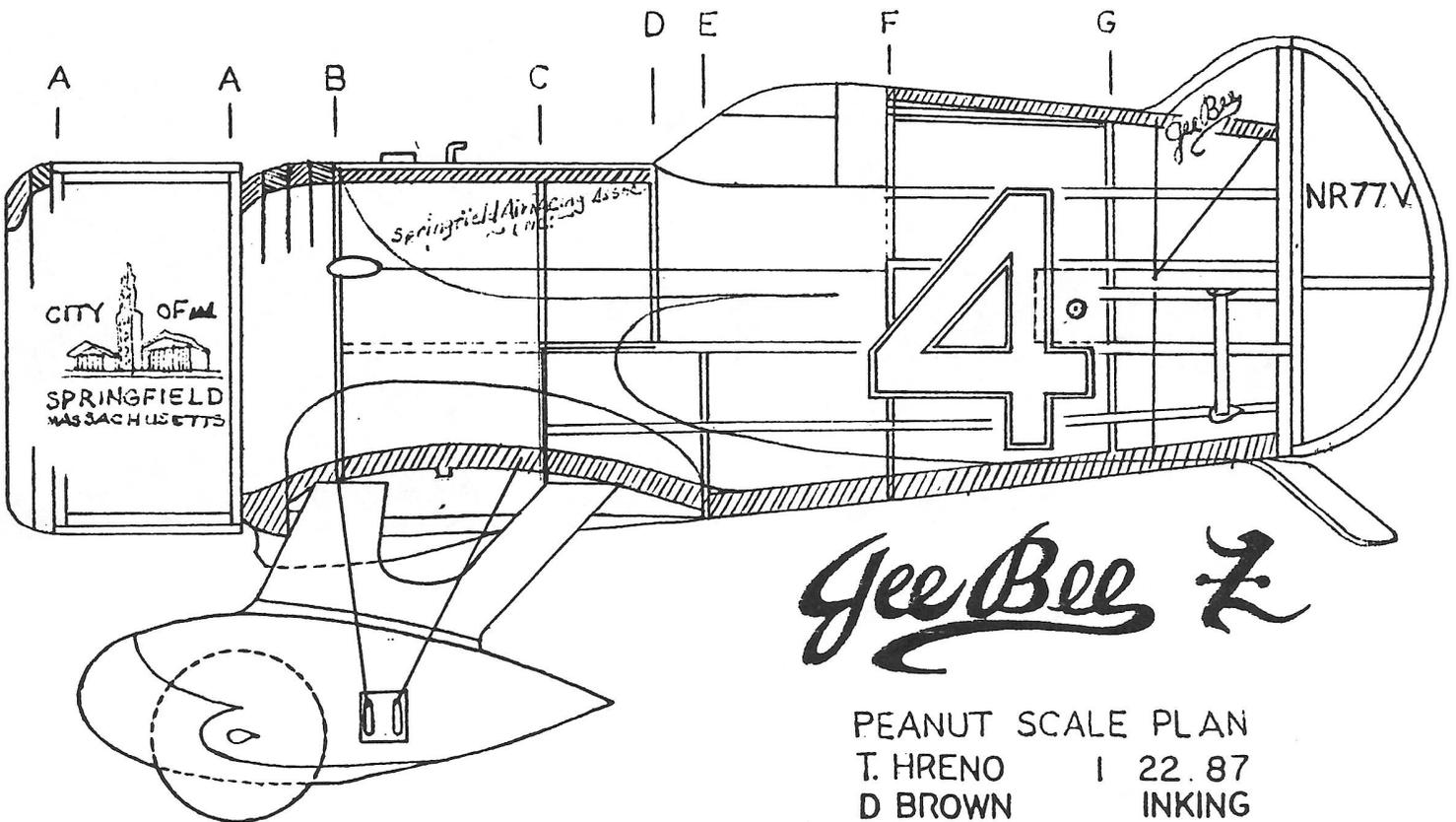
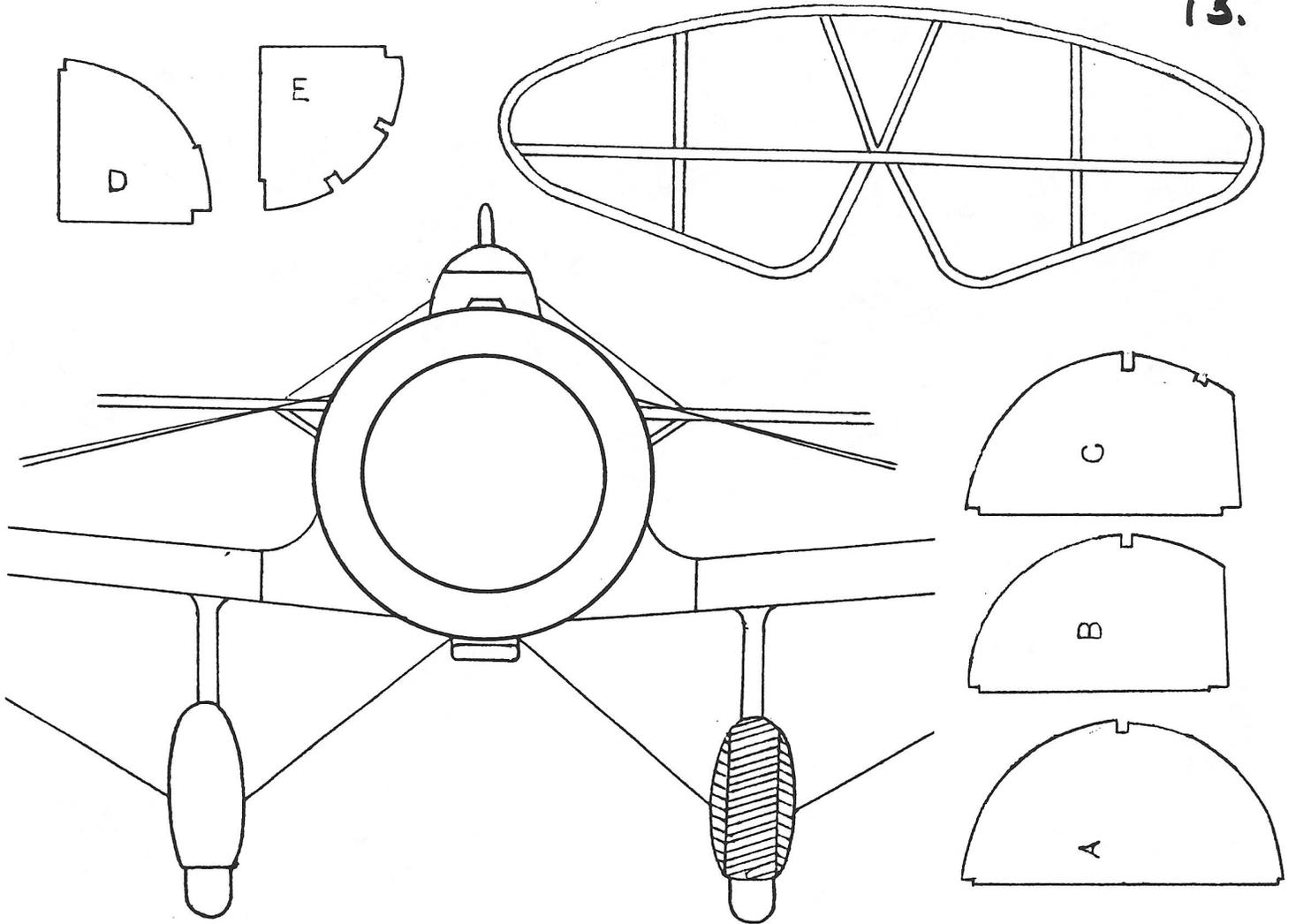
All Pioneer Scale models will be flown in the Pioneer event only, regardless of size.

No Hi-Wing peanuts in the FAC Peanut event.

FAC Old Time Rubber will have two official flights each day and the three best official flights of the four will be used as your total score. Flyoff to break ties.

Please bring proof of scale with you for the mass launch events so we can eliminate the models that don't measure up!

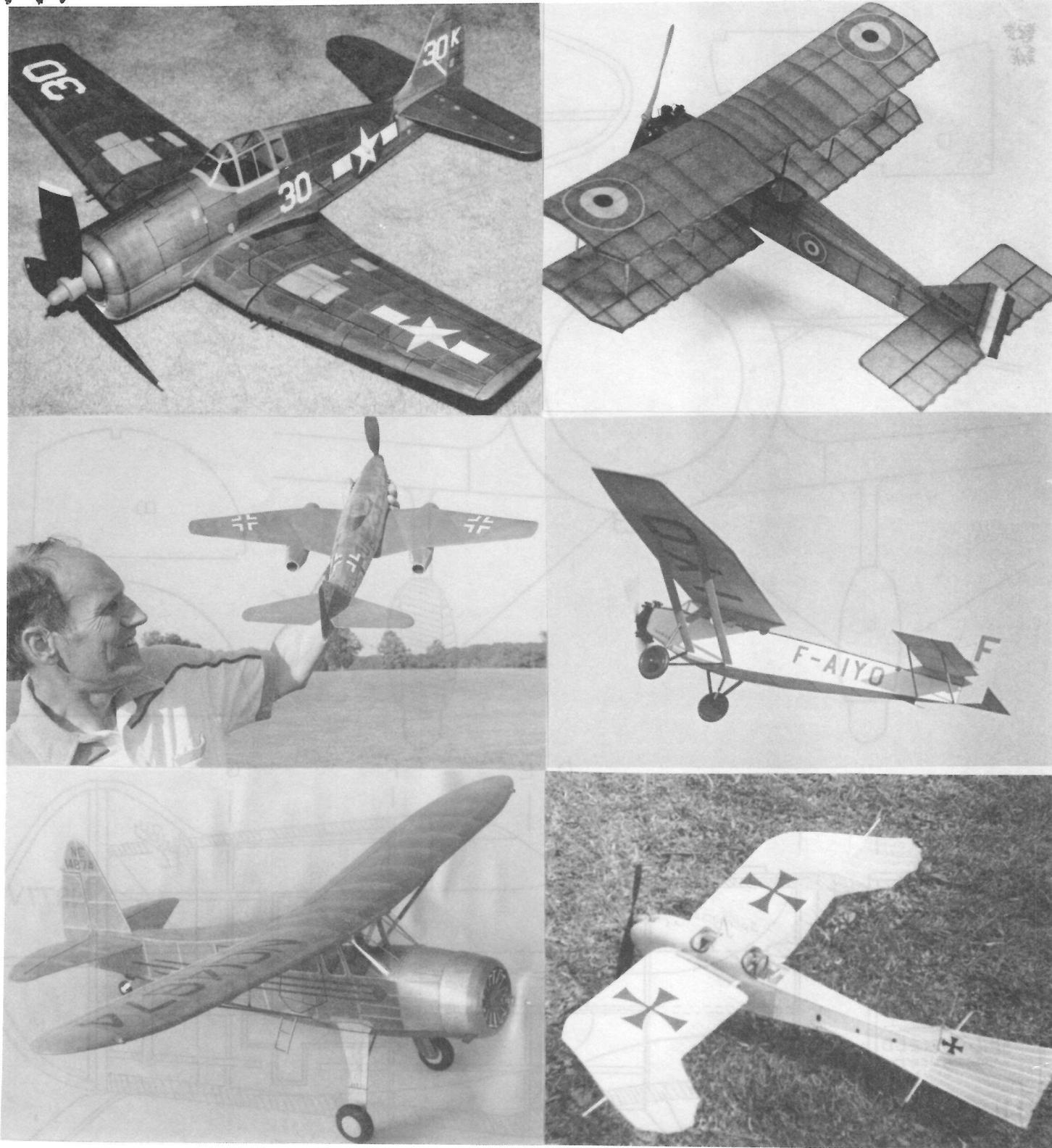
SEE YOU ALL THERE!!!!



Gee Bee **Z**

PEANUT SCALE PLAN
 T. HRENO 1 22.87
 D BROWN INKING

14.



Top photo...Bob Isaacks Grumman Hellcat from a Mike Midkiff plan. Plan available from Flying Models magazine. It's a good flyer! B.A.T. Baboon by David Wagner all the way from Singapore!

Center photos by Tom Schmitt. Another shot of Allan Schanzle's ME-262. This model Really impresses your editor. It would you too if you could see it fly. Next is a Farman by Hurst Bowers. It is electric powered.

Bottom photos...A Comet Howard DGA-9 by Ted Russell. A great looking model and it should fly really well Ted. John Blagg sent this pic of his Jeannin Taube which is Co/2 powered. This one is from England. Glad to see some of our FACers from overseas getting more involved.

Contest Calendar

15.

All Contests include Flying Aces events.

April 17-18...MIAMA State Meet #6, Dr. John Martin, 2180 Tigertail Ave., Miami, Fla. 33133.
 April 18.....17th Annual Snowbird Indoor Meet, Vic Didelot, 4410 Lorna Lane, Erie, Pa. 16506
 April 24-25...Mosquito Squad., Steve Bacom, 836 Banbury Dr., Por' Orange, Fla. 32119.
 April 25.....Dave Smith, 1041 E. Rawhide, Gilbert, Az. 85234. Cactus Squadron.

May 8.....S.C. Scale Regionals, Palmetto Squad., David Smith, 3013 Sigmund Circle, Columbia, S.C. 29204

May 16.....FAC Contest, Erie, Pa., Ross Mayo, 6725 Alan Lane, Fairview, Pa. 4815.

May 22.....Calumet Escadrille, Phil Cox, 3351 Highway Ave., Highland, Ind. 46322

May 22-23....MIAMA State Meet, Dr. John Martin, 2180 Tigertail Ave., Miami, Fla. 33133.

May 23.....Mid-South Squad., Oliver Benton, 409 Brady Pt. Rd., Signal Mtn., Tn. 37377.

May 30.....D.C. Maxcutters, Jerry Paisley, 20 Clearwater Ct., Damascus, Md. 20872.

June 3-6.....Indoor Nats, Johnson City, Tn. Jim Miller, 827 Yorkhaven, Cincinnati, Oh. 45240.

June 12.....20th Great Lakes Contest, Joe Barna, 3517 Kristie Lane, Erie, Pa. 16506.

June 13.....Bay State Squad., Mike Nassise, 22 Greenfield St., South Easton, Ma. 02375.

June 19.....Calumet Escadrille, Phil Cox, 3351 Highway Ave., Highland, Ind. 46322.

June 19.....Cleveland FF Society, Jim Hyka, 16225 Parkgrove, Cleveland, Ohio 44110.

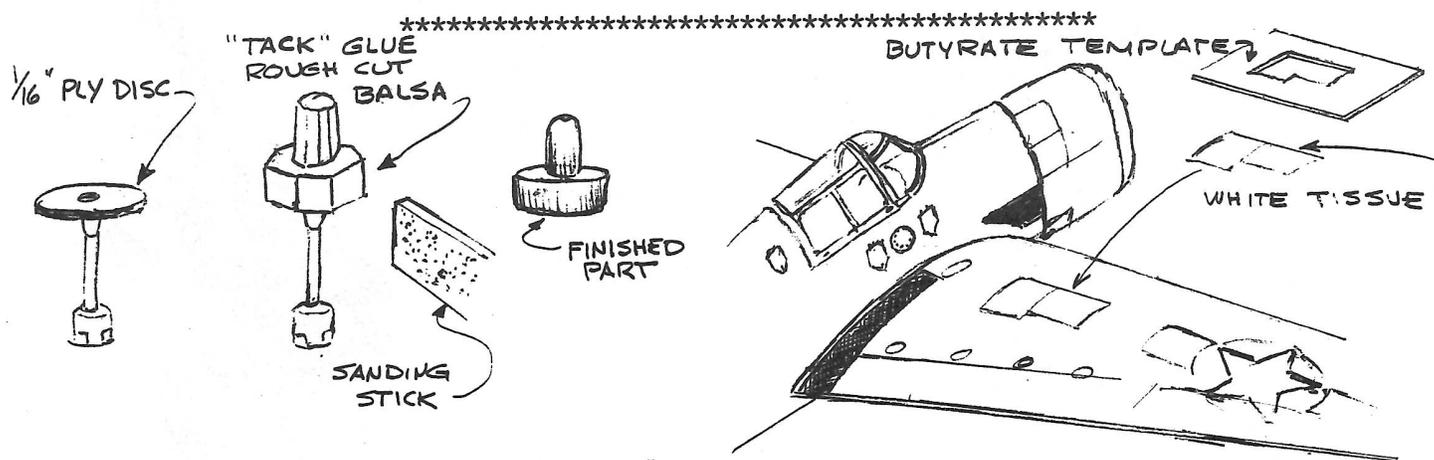
June 20.....Jerry Paisley, 20 Clearwater Ct., Damascus, Md. 20872.

July 1-11....Canadian Nats., Art Doten, 11 Kells Ave., Scarborough, Ont., Canada M1K4W6.

July 10-11...National Warplane Museum FAC Contest, Geneseo, NY. See this issue.

Aug. 13-14-15.5th Shonai Peanut Parcel Post Proxy Pagent, Jiro Sugimoto, 2-36 Kitahata-Cho, Nakamura-Ku, Nagoya 453, Japan for more details.

Sept. 4-5.....FAC, Muncie, Ind. See this issue.



USE YOUR DREMEL TOOL FOR A "LATHE" TO MAKE PERFECT ROUND PARTS....

USE A PLYWOOD BASE ON THE ARBOR DESIGNED FOR ABRASIVE CUT-OFF WHEELS.

USE AMBROID GLUE TO "TACK" ROUGH BALSAM SHAPES TO ARBOR.

SEPERATE FINISHED PART FROM ARBOR W/ DOUBLE EDGED RAZOR BLADE OR ACETONE.

THIS PROCEDURE IS GREAT FOR SPINNERS, WHEELS & PROP HUBS.

BOB ISAACKS - LOS PILOTOS LOCOS '92

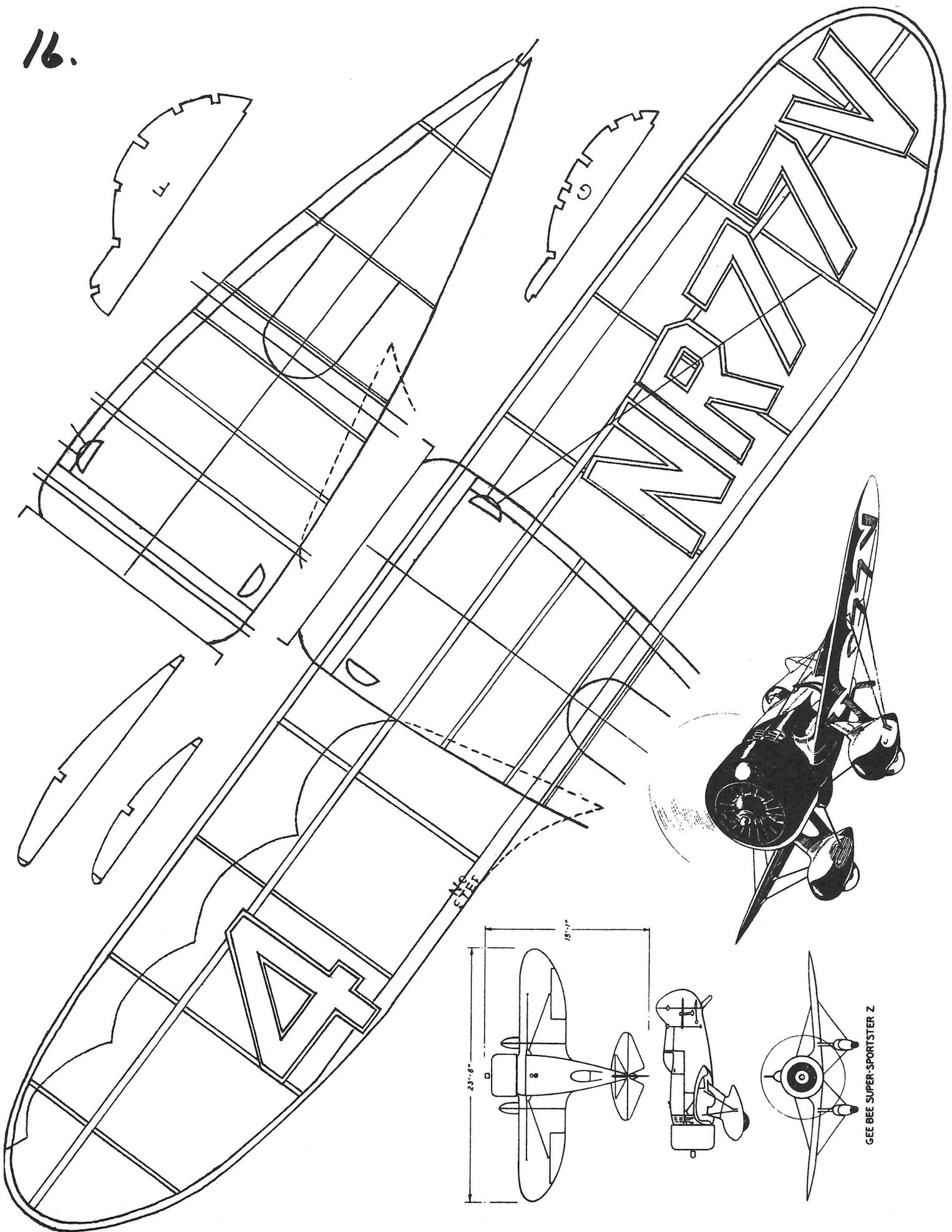
TO ADD A "WEATHERED" LOOK TO WWII FIGHTER AIRCRAFT (AND OTHERS) ADD WHITE TISSUE OVER THE COLORED TISSUE.

USE THINNER TO ADHERE IT TO THE NORMAL COVERING.

MAKE A "DRAFTING" TEMPLATE FROM THIN .010 BUTYRATE TO OUTLINE THE PANEL, I USE A SHARPIE EXTRA FINE PERMANENT MARKER.

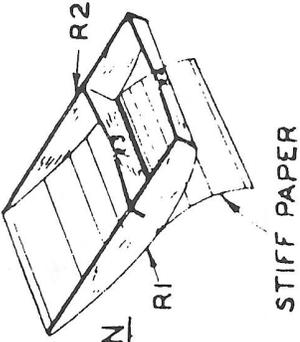
LOOKS GREAT ON MACHINE GUN LOADING DOORS, INSPECTION PANELS ETC.

16.



GEE BEE SUPER-SPORTSTER Z

RADIATOR DETAIL

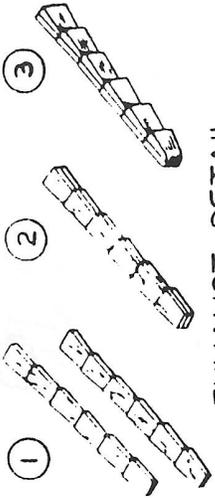


STIFF PAPER

THRUST BUTTON
DETAIL



EXHAUST
DETAIL



IL-2 STORMOVIK

17.

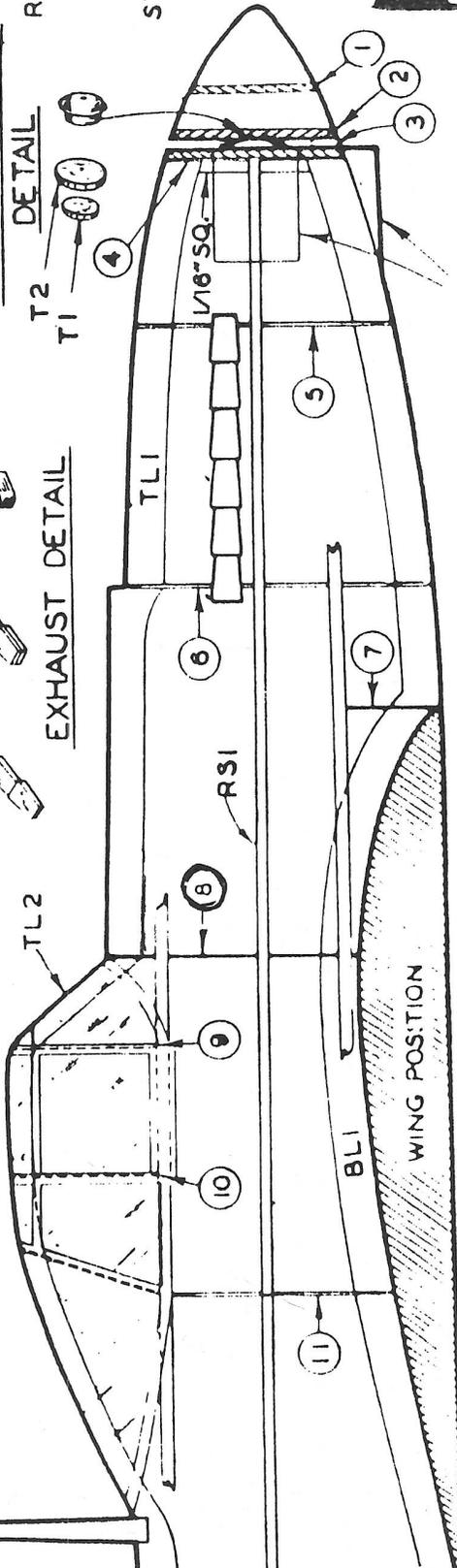
WINGSPAN 20 INCHES

LENGTH 18-13/16 INCHES

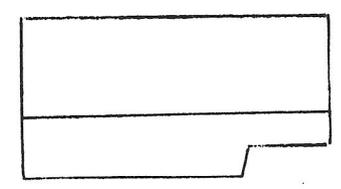
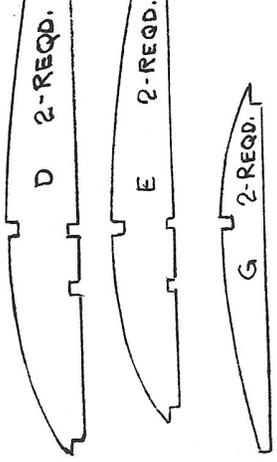
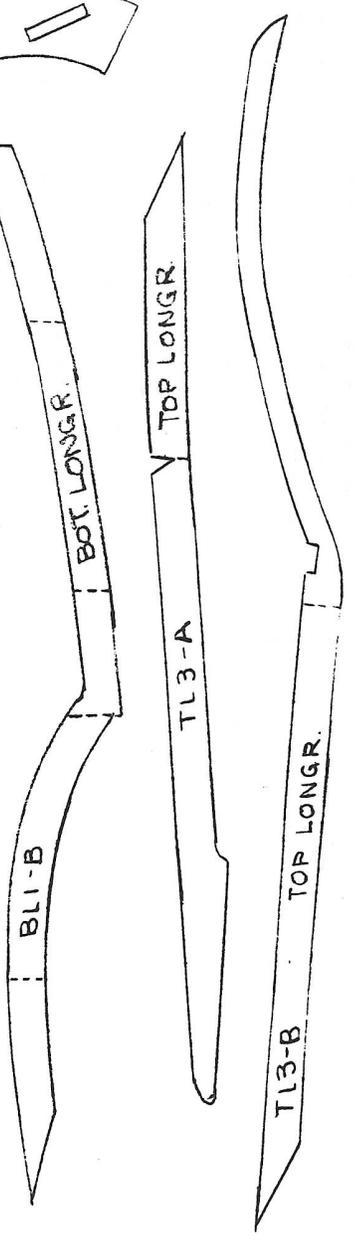
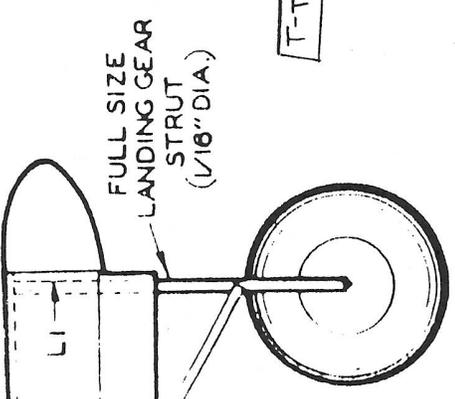
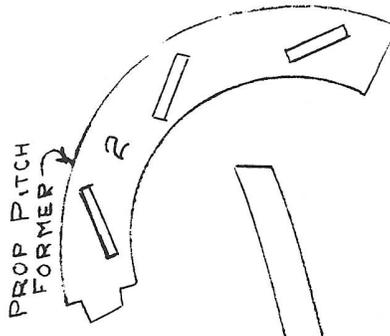
KIT NO. L3

DRAWN BY *Pete Kumpfer*

Copyright 1943 by COMET MODEL AIRPLANE & SUPPLY CO.



AIR SCOOP
DETAIL



WHAT COLOR WAS IT?

By Dave Stott

Historians have been careful to record design and performance characteristics, as well as service life of the world's aircraft. This is by no means a complaint. They have done their work well, and this work has certainly inspired many a modeler to head for the workbench. But, there is too often a further characteristic of historically recorded aircraft, and an extremely obvious characteristic, that if missing, could stop our modeler dead. What color was it???

Military color schemes have been well researched and recorded in the past 3 or 4 decades thanks in great part to the advent of plastic models and their makers. It hasn't been until the last decade or so that the coloring of civil aircraft has been given the attention it has been sorely missing. The purpose of this and later articles will be to pass on to fellow modelers what little has come my way over the years. It has all been simply stumbled upon and filed for future use. It is by no means complete, or fool proof. It cannot get into shades or tints other than to say it was "light", or "dark". It is, for the most part, as the observer saw it with his own eyes, and as he may relate it years later as he remembers it. It is also as artists have recorded it back then, and years later. And they are entitled to their "license". At best it is something, where there was nothing. If any reader has some further info he would like to contribute in this vein I will be happy to include it in future writings. My address is 4304 Madison Ave., Trumbull, CT 06611.

Dr. Martin Luther King is not the only one who has unfulfilled dreams. I once dreamed witnessing the trial of a new electronic machine that could read the colors from a black and white photo simply by passing a wand over the surface!!! Well, about the only color we can read with a reasonable degree of certainty from a black and white photo is silver, due to it's reflective quality. Even bronze and gold do not exhibit quite the same reflective aura as does silver. One thing to bear in mind when a black and white photo is being studied is to determine whether the day the photo was taken on was a bright sunshine day, or overcast. This is done by checking to see if the shadows are dark with a definite outline. This will help in estimating the shades of coloring.

The earliest consideration of the plight of model builders in the quest for color schemes of civil aircraft was found in... you guessed it, Flying Aces magazine. The December, 1938 issue contained an article covering the National Air Races by Burton Kemp. The following table is an excerpt. It is interesting to note Kemp's description of the color of Turner's Laird. Was it an overcast day when he observed it?

PILOTS AND PLANES IN GREVE AND THOMPSON EVENTS

GREVE TROPHY RACE

(Planes with engines of 549 cu. in. displacement or less)		Ch. In.	D. C. No. (1)	Ship Colors (1)
Pilot	Plane	Engine		
Harold McLain	Flag Special	Pebble Niagara	NX-86-Y	Blue & Gold, white trim
Russell Johnson	Chrysler Special	Messico B-4	NX-96-Y	All yellow
Harold Dury	Bushby B&M-1	Messico C-15	NX-264-Y	All aluminum
Earl Ortman	Maroux-Hromberg Jackrabbit	Messico C-15	NX-264-Y	Black fus., yellow wing
Harry Crosby (2)	Cronby C-4	Messico C-15	NX-96-Y	Aluminum
Art Chubbson (2)	Keith Rider # Ball	Messico C-15	NX-96-Y	Aluminum, blue wing
Morrison McKean	McKean Miss Los Angeles	Messico C-15	NX-264-Y	All light blue
Merion McKean	Schoenfeld-Rider Firecracker	Messico C-15	NX-264-Y	Red, gold trim
Tony LeVier	Folkerts Special	Messico C-15	NX-264-Y	Yellow, white trim
Roger Don Rae	Folkerts Special	Messico C-15	NX-264-Y	Red, blue trim

THOMPSON TROPHY RACE

(Planes with engines of 1860 cu. in. displacement or less)		Ch. In.	D. C. No. (1)	Ship Colors (1)
Pilot	Plane	Engine		
Steve Wittman	Wittman Super Chief	Curtiss D-12	NX-1858	Red, aluminum nose
Harold Mackey	Maroux-Hromberg	Twin Waap Jr.	NX-14216	Yellow fus., black wing
Louise Williams (3)	Wedell-Williams 44	Hornet	R-81-Y	Gold
Robert Turner	Military Aircraft Special	Twin Waap Sr.	NX-2491	Blue fus., yellow wing
Leland Williams	Aired-Turner LTPM 4	Twin Waap Sr.	NX-2491	Silver fus., yellow wing
Leland Williams	Peerson-Williams Jr. Smoothie	Curtiss Condor	NX-94-Y	Red, gold trim

Notes to above tables: (1) These details included to enable future identification and as an aid to model builders.
 (2) Also competed with this ship in the Thompson finals.
 (3) Appeared at field but not tuned up in time for race.

While using good ol' Flying Aces as a source, let us take a gander at the solid model plan and article by none other than Jesse Davidson in the September, 1940 issue. The ship is the Brewster Fleet. This is the same ship as the Consolidated Fleet biplane except that it used a seven cylinder 165 H.P. Warner Scarab with a drag ring. It sported the final fin form of the four shapes used on the Kinner powered versions. Included in Jesse's article is a table of factory color schemes. Unfortunately, they are not coupled to any particular registration, but then this was only text to accompany a solid model plan in 1940. The table is below.

TABLE OF COLOR SCHEMES

Wings	Fuselage	Tail Surfaces	Struts
Yellow	Blue	Yellow	Blue or Black
Yellow	Green	Yellow	Black
Yellow	Yellow	Yellow	Black trimmings
Aluminum	Red	Aluminum	Red or Black
Orange	Green	Orange	Black
Cream	Red	Cream	Black or Red
Cream	Blue	Cream	Black or Blue
Red	Red	Red	Aluminum trimmings

Of course, the above are factory schemes for Brewster Fleets. Fleets of all kinds in the field may well have had some custom paint schemes applied, as the following excerpts from classified adds in Aero Digest magazine indicate.



JACOBS

WHAT COLOR WAS IT? Cont'd.

FLEET: Warner motor. White with red trim.
FLEET: Warner motor. Stinson maroon finish.
FLEET: 125 Warner powered. (7 cyl.) Mfg. 1930. Hi gloss red.
FLEET: 125 Warner (7cyl). Mfg. 1929. Black fuselage with orange wings.
FLEET: De Luxe, model 9., 125 Kinner B-5. Yellow wings, red and black fuselage.

Now there is plenty missing here as far as using this info to make a model. You would have to determine, if possible, the model Fleet described. The manufacture date would help here when it is given. You need to know the model to determine the fin and rudder shape. Where a wing color is given we can but assume the stab followed suit. In the case of the Fleet with the "red and black fuselage" we have no idea of color demarcation, or pattern. If a black and white picture shows up some time with two tones for the fuselage and light tones for the wings we might assume it to be the ship in this add. As I said before, this is data only to provide some thing where there was nothing.

While using the classifieds from Aero Digest let us proceed in alphabetical sequence so you may use this reference with a minimum of searching.

AEROMARINE KLEMM: 65 H.P. LeBlond. Painted yellow and black.
AERONCA C-2" Late model one place. Black and orange.
AERONCA C-2: Wings yellow with black scalloped L.E. Fuselage yellow and black.
AERONCA C-3: Seaplane. High gloss yellow.
AERONCA C-3: Two place. Finished in red and blue.
Aeronca C-3: Late 1936. Loening yellow.
AERONCA LOW WING: NC15292 Waco vermilion, hand rubbed. (Here is a matching registration. Rare luck.)
AERONCA LOW WING: Cream trimmed in red.
AERONCA LOW WING: 1936 model. Green and yellow.
Aeronca K: Large tires. Blue and yellow.
AMERICAN EAGLE: OX-5. Goodyear airwheels. Green and Gold. Struts and wires chrome plated!
AMERICAN EAGLE: Model 101, OX-5. Hand rubbed red and yellow fuselage, yellow wings.
AMERICAN EAGLE: Model 201, Kinner K-5. Orange wings, black fuselage with orange stripe.

To be continued.

CAPTAIN DEBRIS

and the

Handley Page P.O.Y. Water Bomber

Chapter Six

Behind them, Lord Simpering's party quietly and almost unobtrusively began to riot. His Lordship's lapels were deftly torn off. Canning-Jahrs calmly wrote down statements in his wet little pocket notebook. His colleague, Detective Inspector Munchmore, ate a cucumber sandwich.

At Henlow, thirty miles north of London, the 'phone jangled in the operations office of Number 23 (FTR) Squadron. Flt. Lieutenant Harry Faversham put down his tea and sputtered into the instrument, his mouth full of cakes. He listened and then continued to sputter.

At the other end of the line the testy Air Ministry type said, "We had a bad connection, but they're going to send up a flight of Snipes."

Harry Faversham sauntered out of the OPS Office and interrupted two tennis matches. The players, quickly briefed by Faversham, and in white flannels, walked over to the flight line. Within minutes, four Sopwith Snipes were warmed up and four stalwart members of "the greatest flying club in the world" took off to bring down Captain Debris and the Water Bomber.

By this time, the Lion had decided to behave, and DeBris was making good time toward Cricklewood when the Snipes appeared. A burst of twin Vickers quickly got his attention. The Snipe leader flew in front of DeBris and signaled him to alter course. DeBris looked around. There was a Snipe at each wing tip and one on his tail, all weaving in S turns to keep station; he made a rude gesture and continued on course.

The Snipe leader wanted DeBris to turn left toward Henlow. He signaled to the other Snipe pilots and they moved into position on DeBris' right. Another signal to DeBris, who was now busily fooling with the tea urn, was not acknowledged. The Snipe leader turned toward the Water Bomber and DeBris saw tracer slash by in front of him.

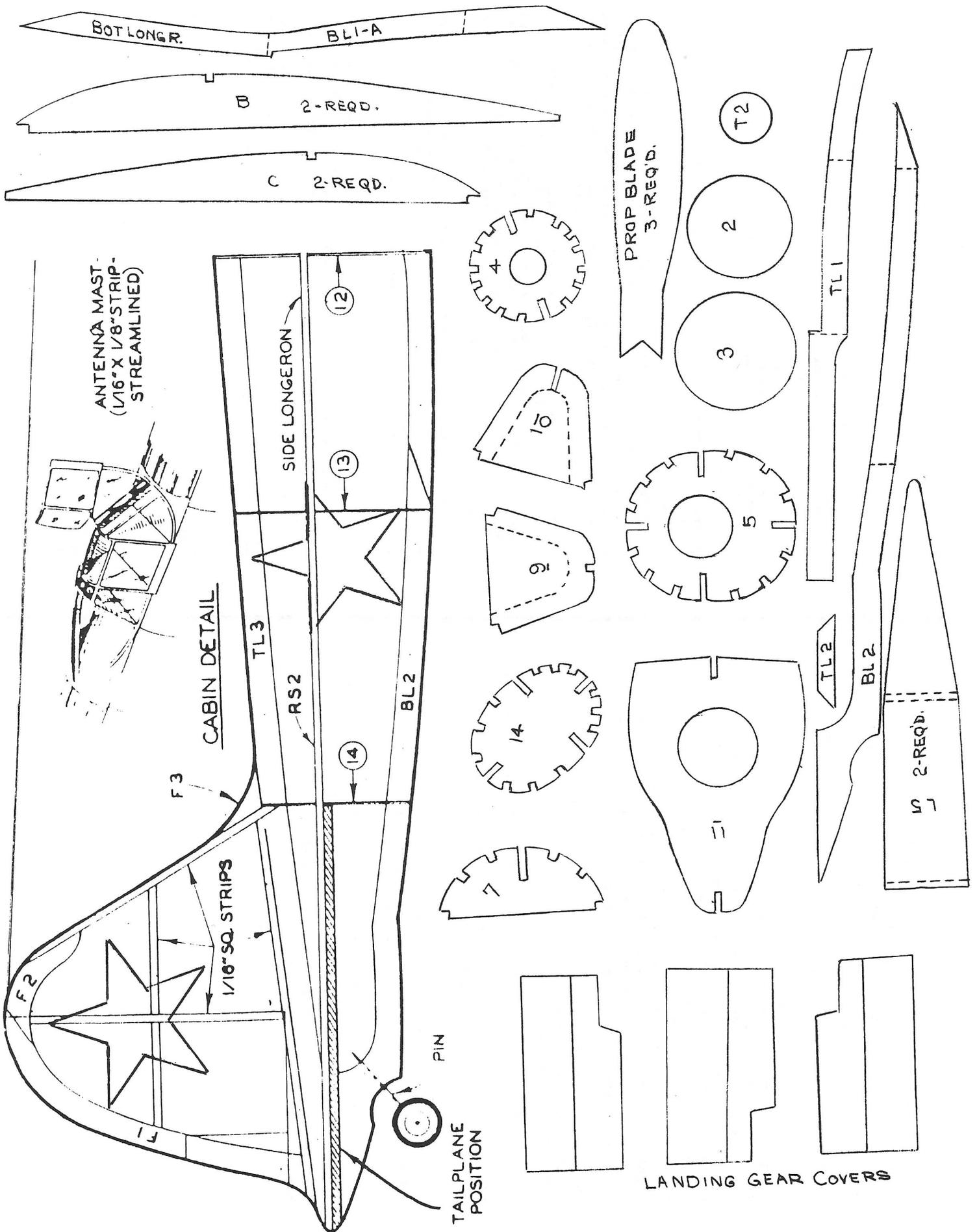
"Bally blighters!" burred DeBris, "what do they want now?" He kicked hard right rudder and pushed the stick to the forward right corner of the cockpit. The Water Bomber lurched under the attacking Snipes and trundled through a turn, losing altitude all the way. He was now headed for the center of London, a point not overlooked by the Snipe leader. This worthy then did a vertical bank and sat on DeBris' tail. He let off another burst from his twin Vickers. He had to s-turn to keep from over-shooting, so most of his shots were wide of the mark. The bullets that hit the Water Bomber bounced harmlessly off the fuselage.

DeBris turned to the left, narrowly missed another Snipe and lost more altitude over suburban London. A third Snipe tried a deflection shot from the right, tracer lashed into the Water Bomber and ricocheted.

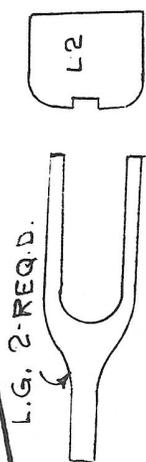
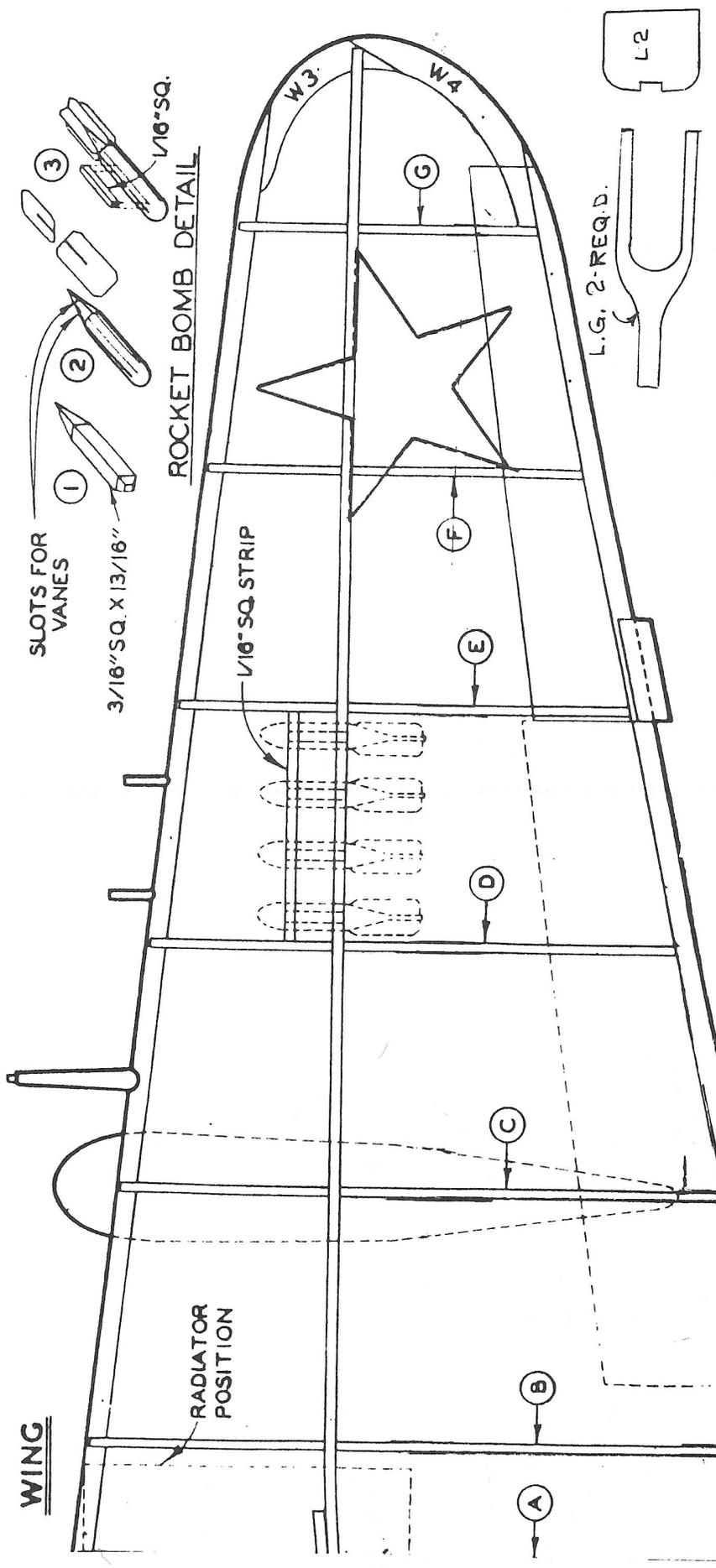
The two Air Ministry men in their chauffeured black Bentley careened through traffic and followed below. The battle was now tooling along at less than fifty feet over roof tops, trees and utility lines, a critical point overlooked by the over-zealous Snipe leader who split-essed into a stand of trees in a small park. He climbed out of the wreckage and wobbled across the road just ahead of the speeding Bentley and into the nearest pub.

to be continued.....

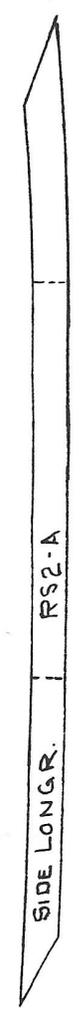
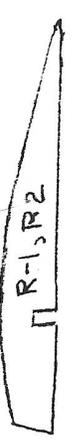
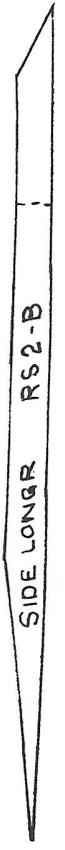
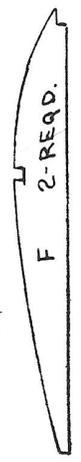
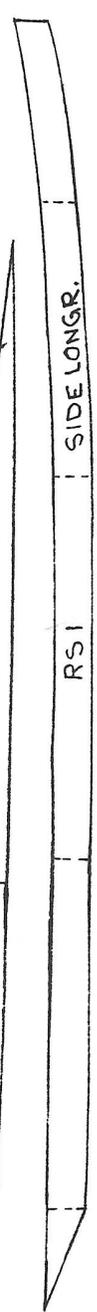
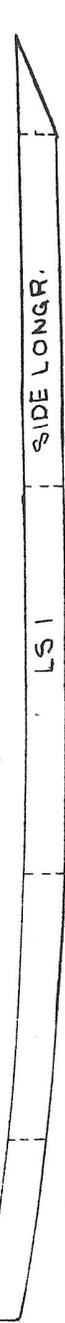
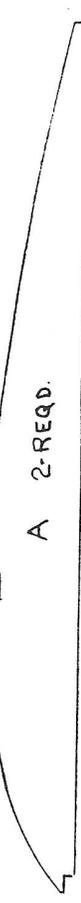
20.



WING



GLUE FILLETS ON AFTER
WING AND FUSELAGE ARE
COVERED



22.

**KANONE LIST AS OF 3-2, 1993
(Victories)**

NAME	VICTORIES	NAME	VICTORIES
AIR MARSHALL =====		BRIGADIER GENERAL =====	
ROBERTS, GORDON	281	KLIENERT, RANDY	28
SRULL, DON	133	KUENZ, RALPH	27
MCGILLIVRAY, JACK	122	STOTT, PAUL	27
NORMAN, DENNIS	92	DAILY, PAT	26
REES, DAVE	90	MARETT, JOHN	25
STOTT, DAVE	69		
MILLER, JIM	68	COLONEL	
MIDKIFF, MIKE	61	=====	
MEYERS, III GEORGE	58	LOUCKA, LARRY	24
BRIEHL, DAN	57	MOSES, JACK	24
FINEMAN, MARK	57	THOMPSON, BOB	24
		BOYANOWSKI, PAUL	23
AIR VICE MARSHALL		GILBERT, VANCE	23
=====		LIVESAY, DAVE	23
BROWN, RUSS	45	BLAIR, JOHN	22
GENERAL		BRUNING, PRES	22
=====		LOEHLE, CARL	22
BUKOWSKI, CHET	44	MCDONALD, DAN	22
PERES, VIC	44	TUDOR, JOHN	22
SCHANZLE, ALLAN	44	BACOM, STEVE	21
MAYO, ROSS	42	MATHER, CLARENCE	21
WECKERLY, STU	42	EWING, FRED	20
ZAND, MIKE	42	LEFFLER, GEORGE	20
EGGERT, WALT SR	40		
		COLONEL	
LT. GENERAL		=====	
=====		HEYN, ED	19
ANDERSON, PADRE BILL	37	REICHEL, LIN	19
MARTIN, DOC	37	TRIVIN, WAYNE	19
HOWARD, DICK	36	CLEMENS, BOB	18
COX, PHIL	35	FIKE, JACK	18
NIEDZIELSKI, DAVE	35	KLUIBER, RUDY	18
SMITH, DAVE (AZ)	35	LEISHMAN, BOB	18
		MOORE, ROYALL	18
MAJOR GENERAL		BARLOW, PHIL	17
=====		SCHOBLOWER, CHARLES	17
HOOT, ROLAND	33	SHARBONDA, KEVIN	17
LAWTON, AL	32	SMITH, DAVE (SC)	17
DELOACH, DON	30	WUNSCHE, FRED	17
MCGINNIS, DEAN	30	HELMAN, PAUL	16
		LANGLEY, TED	16
		HOUCK, JOHN	15
		NALLEN, TOM SR	15
		STEDENTOPF, BOB	15
		SPRIEREGEN, PAUL	15
		STRUCK, HENRY	15

**MAJOR
=====**

SCHMITT, TOM	14		
BALUNEK, DEL	13		
CHAPPELL, HOWARD	13		
GREGORY, ROLFE	13		
HURDLE, JOE	13		
NALLEN, MICK	13		
NALLEN, TOM JR	13		
SUGDEN, BOB	13		
BUCHANAN, DOUG	12		
CARSON, BUD	12		
SLUSARCZYK, DON	12		
STEEB, DON	12		
RUSSELL, TED	11		
ARONSTEIN, DAVE	10		
BOYLES, RED	10		
BREDEHOFT, GEORGE	10		
DECOOK, AL	10		
DELOACH, ED	10		
DRISCOLL, DAN	10		
DUNMIRE, DICK	10		
ESCALANTE, MIKE	10		
HINES, MIKE	10		
LINSTRUM, DAVE	10		
POWELL, CLAUDE	10		
CAPTAIN			
=====			
BOJAN, ED	9		
BUXTON, JIM	9		
HADLAND, BUTCH	9		
HALLMAN, TOM	9		
PAISLEY, JERRY	9		
PASSARELLI, BILL	9		
SCOTT, FRANK	9		
WELSHANS, MIKE	9		
BENDER, R.	8		
MILLER, RICH	8		
NASSISE, MIKE	8		
PAISLEY, SCOTT	8		
ROPAR, NICK	8		
SCHLOSBERG, BOB	8		
VANDORN, STUART	8		
WARNER, BILL	8		
ANDERSON, ERIC	7		
ASSEL, DON	7		
BROWNHILL, CHRIS	7		
FRAUTSCHY, H.	7		
HYKA, JIM	7		
KRUSE, LARRY	7		
NIED, TOM	7		
NUNEZ, GEORGE	7		
ODOM, TOM	7		

**CAPTAIN (CONTD)
=====**

O'BRIEN, TOM	7		
PELASTOWSKI, ED	7		
SCHLOSBERG, JANE	7		
SCOTT, CHRIS	7		
WELLS, MILLARD	7		
ALLEN, TODD	6		
DOCK, TED	6		
GARAFLOW, DON	6		
HARWOOD, DON	6		
HUDSON, NEAL	6		
KUTKUHN, JIM	6		
MILLER, WILLIAM	6		
PRISEL, DUDLEY	6		
SANFORD, C.	6		
SLUSARCZYK, CHAS.	6		
STEED, CHAS.	6		
TAKAGI, FUDO	6		
WHITTING, JOE	6		
ZAND, ROBERT	6		
BENTON, OLIVER	5		
BOJANOWSKI, BOB	5		
BOURKE, ROY	5		
BROCK, WAYNE	5		
DRELA, MARK	5		
ENGLERT, DAVE	5		
MCENTEE, RICH	5		
NOVAK, ED	5		
PRICE, BRUCE	5		
ROWSOME, FRANK	5		
RUSSO, ROCKY	5		
SHIRLEY, HERB	5		
SOTICH, CHAS.	5		
THOMPSON, MIKE	5		
TIMMONS, RUSS	5		
WALLACE, PETE	5		
LIEUTENANT			
=====			
ARNOLD, TOM	4		
BACKSTROM, AL	4		
BARNA, JOE	4		
DONOHUE, JERRY	4		
EGGERT, WALT, JR	4		
FARRELL, WALLY	4		
GARBER, LES	4		
HASKELL, CURT	4		
HOUCK, MARK	4		
HUNTER, GARY	4		
JOSEPH, JOE	4		
MASTERS, BOB	4		
NIPPERT, VIC	4		
PITTMAN, TERRY	4		

LOW WINGERS AND THE DEADLY RIGHT HAND TURN.

A CLARIFICATION,

By Dave Stott.

In the article bearing the same title printed in the F.A.C. News, #139-65 I used the phrase "catch up" that has caused a misunderstanding among readers. I really am aware that a model (or any airborne object) flies in "relative wind".

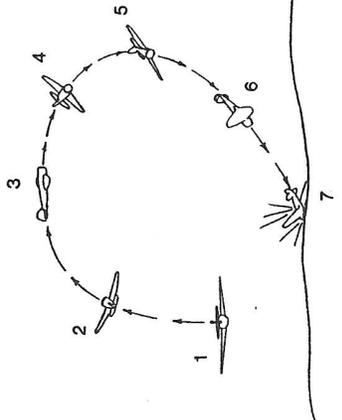
Relative wind, observation leads me to believe, is not of constant temperature, velocity, or direction. The inherently stable model is constantly correcting for these variables, but not without a certain lapse of time which I term "lag".

To support the existence of lag I offer the reality of the Angle of Precession in helicopter rotors, (ref; Theory of Flight of Sikorsky Helicopters), and the workings of dihedral. When a model in flight is upset by a side gust (which creates a variance in direction and velocity of relative wind) there is a time lapse in the model sensing the new condition, and compensating for it. If lag did not exist we would not see the model bank and crab away from the direction of the gust before returning to a state of equilibrium. Or at the very least, notice the wings rock.

One fact to be mentioned here is that the stalling speed of an airplane is increased when it is in a banked turn. As a matter of fact, a whopping 40% for a 60° bank!

So, with the increased stalling speed, lag, and a continual reduction in the velocity of relative wind due to turning down wind the model must compensate for these conditions by developing more thrust to maintain flying speed. I used the term "catch up" to describe all of this happening. I ask, if you please, re-read that article with these explanations in mind.

It took years of contemplation before submitting that article for publication. I am not an aerodynamicist. I am simply an experienced observer of the characteristics of wind on models and birds in flight, and where its flow may be seen across open fields by the action of grass, leaves, and pole mounted mylar streamers. I really do not feel qualified to project such theories, but also feel plagued by the phenomena of un-seating nose plugs and the spiral dive. Perhaps someone more qualified will become interested enough to compose an article on the subject and send it to GHQ so all interested may benefit by its publication.

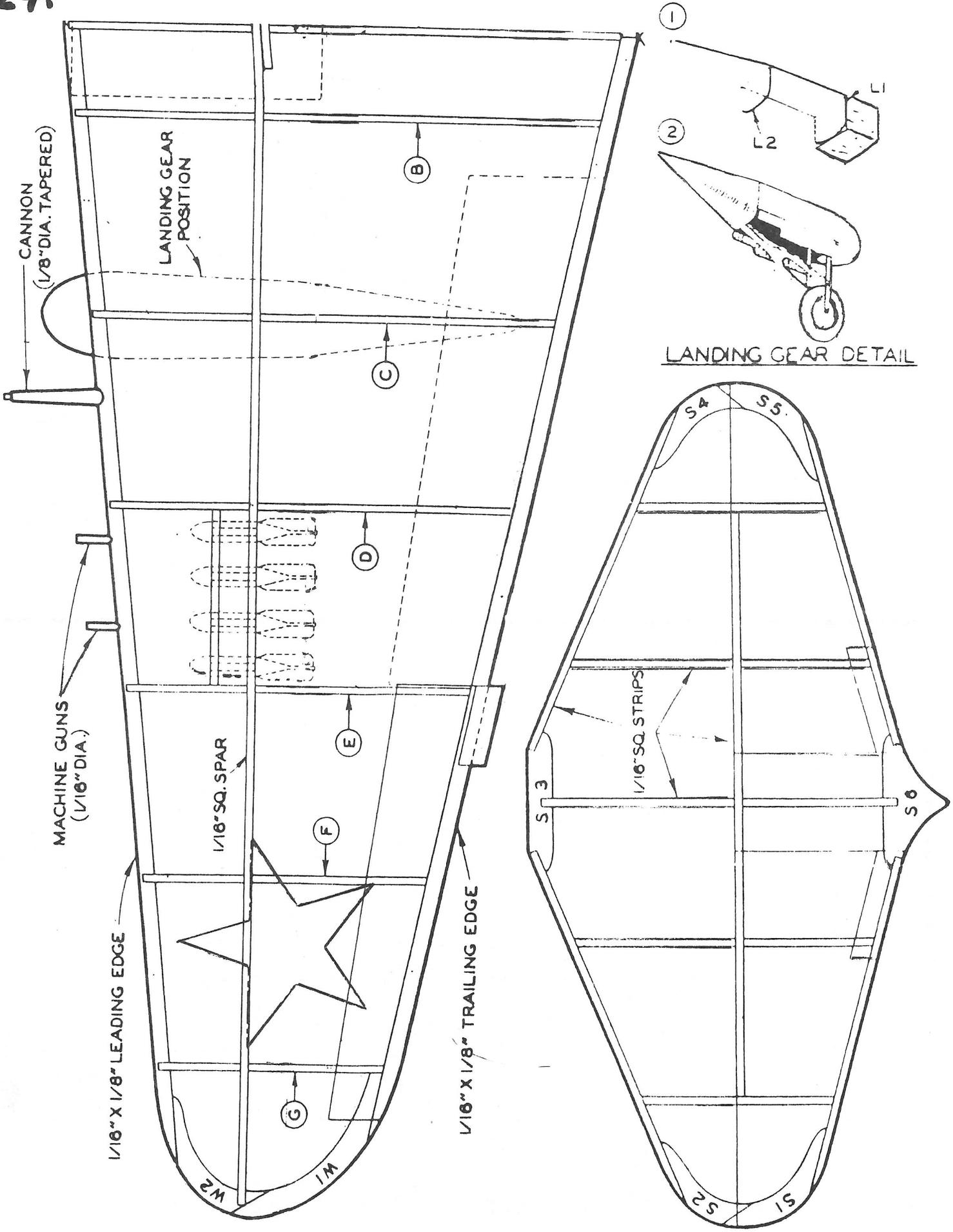


LIEUTENANT (CONTD)

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PLACHY, LAD	4		KOPTONACK, JOHN	2
REDDING, HERB	4		LEIFER, LOUIS	2
SKRANJC, GERRY	4		LEWIS, GEO	2
WEISENBACH, WARREN	4		LYONS, BOB	2
WHITEMAN, JIM	4		MARCELLO, ED	2
ARMSTEAD, GEORGE	3		MITCHELL, BILL	2
BARBER, DOUG	3		MOSKOW, MIKE	2
BATTERSON, REG	3		MOULTON, BOB	2
BIRD, LES	3		MUSOLF, BILL	2
BRIEHL, JEFF	3		OBARSKI, DICK	2
BUCHER, TIM	3		ODOM, LOUIS	2
COFFEY, WENDELL	3		PAPIC, FERRIL	2
DOCH, ZACH	3		PEDERSON, JOE ED	2
FEDOR, MIKE	3		PHILLIPS, BERT	2
GILBERT, SIDNEY	3		RECKER, GERD	2
GILLIS, RICH	3		REICHEL, J.	2
HANNAY DOUG	4		RUSSELL, BOB	2
HOPKINS, HARVEY	3		SCHICK, EARL	2
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KORTENBACH, JUERGEN	3		SMITH, OSCAR	2
LUNBERG, BOB	3		THOMASIAN, HARVEY	2
MCBRIDE, DUNCAN	3		WAGNER, JERRY	2
NELSON, BOB	3		WALE, TED	2
ORZECH, HENRY	3		ALLEN, TERRY	1
PERRYMAN, GEORGE	3		BAIRD, TEX	1
SANDOR, TOM	3		BETJEMANN, BOB	1
STEIN, HARRY	3		BETZ, PRISCILLA	1
VOORHEES, JOHN	3		BLACKHAM, RICH	1
WEBB, JASON	3		BOWERS, HURST	1
ALLEN, DICK	2		BRAUNLICH, MARK	1
BALCER, WALT	2		BUCHANAN, PEARL	1
BARBER, LES	2		BURDSAL, LEA	1
BELL, BILL	2		BURRY, CLAUDE	1
BENNETT, LEON	2		CASGILL, WALDO	1
BRIMMER, DON	2		CERVIONE, MIKE	1
CALDWELL, BILL	2		CHAFE, WARREN	1
CAMPBELL, DON	2		CLUTTON, ERIC	1
CANNON, HAROLD	2		COLSON, STAN	1
CERESA, BILL	2		COPEMAN, KEN	1
CLARKE, BILL	2		CORNELIUS, DALLAS	1
COX, VIC	2		COURTNEY, ROY	1
DAILEY, JIM	2		DAVIS, GREG	1
DECOOK, ALLAN	2		DEHAAS, BILL	1
DECOOK, DON	2		DOTEN, ART	1
FACTOR, R.	2		ECKERSON, EARL	1
FLESHER, AL	2		ENGLERT, DOUG	1
GALLO, GREGG	2		ENGLERT, JEFF	1
HAAKONSEN, ERIK	2		EPP, BRIAN	1
HARRIS, JIM	2		ESPIL, JOE	1
HERR, TOM	2		EVERSON, WALT	1
HUDSON, RALPH	2		FEDOR, JEFF	1
HUMPHRIES, JACK	2		GEARING, GEORGE	1
KOMP, HENRY	2		GROENING, TOM	1

24.



The Flying Aces Plan Packet are available from GHQ. The cost is \$8.00 each plus \$2.00 each for postage. Plan Packet #1 has ten plans (11 X 17) on 16 sheets printed on one side only so you can build them right out of the packet. Plan Packet #2 is of the same format except that there are 11 plans for you, on 16 sheets. FAC Rules are also available from GHQ at a cost of \$2.00. Send your orders to; FAC-GHQ, 3301 Cindy Lane, Erie, Pa. 16506.

For sale; Wings/Airpower Vol. 1 to Vol. 19 #4 in binders. Vol.1 \$35.00 each, Vol. 2 to 19 #4 \$27.00 each, plus \$3.00 shipping each order. All are in mint condition except Vol. 1 #1 Airpower has a clipping from the back cover. Paul Grabski, 5004 Saufley Field Rd., Pensacola, Fla. 32526.

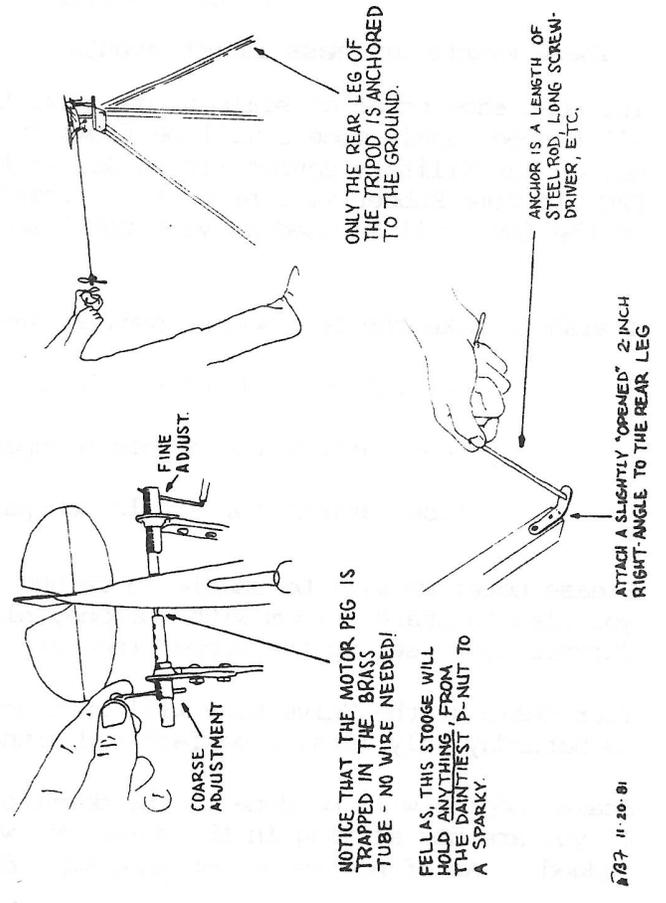
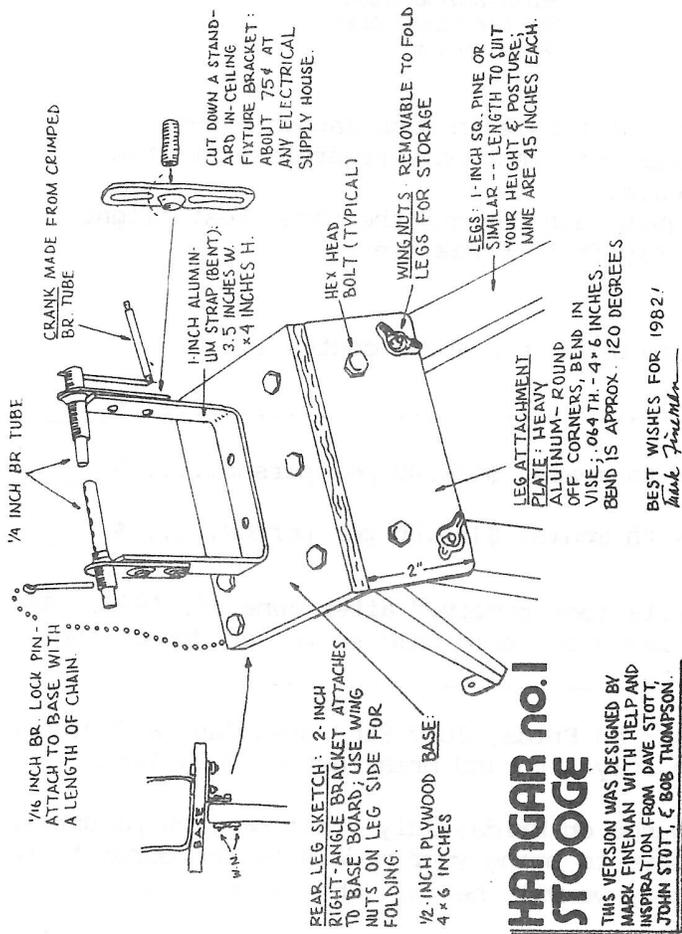
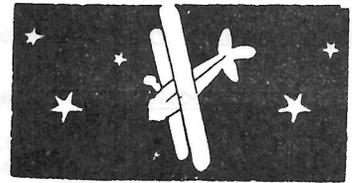
For sale; Domeduster Plan Packet #2. Plans cover seven different classes of free flight modeling from beginner to advanced levels. Included are plans for Peanut, Ministick, Catapult Glider, Bostonian, Pistachio, EZB and Pennyplane. \$8.00 including P/H from Stan Fink, 1810 Pine St., Philadelphia, Pa. 19103. Make checks payable to Stan Fink.

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26.

NATIONAL WARPLANE MUSEUM FLYING ACES CONTEST

JULY 10 - 11, 1993

SPONSORED BY FAC GHQ and the WESTERN NEW YORK FREE FLIGHT ASSN.

Time 8:30 am til 5:00 pm.

National Warplane Museum Field,

Geneseo, New York.

REGISTRATION FORM

Please print

Name _____ AMA or MAAC No. _____
 Street _____ Jr./Sr. _____ Open _____
 City _____ State _____ Zip _____

Entry fee \$20.00 before June 30, 1993 if possible to save paper work later.

Mail entry fee to Lin Reichel, 3301 Cindy Lane, Erie, Pa. 16506.

Awards through third place. All contestants must be members of the AMA or MAAC.

Schedule

Saturday

Sunday

FAC Scale
 FAC Peanut
 Embryo Endurance
 Pioneer Scale
 Greve Race *
 World War One *
 Golden Age Military *
 FAC Old Time Rubber

Hi-Wing Peanut
 Golden Age Scale
 Jumbo Scale
 FAC Power Scale
 Thompson Race *
 World War Two *
 Multi-Engine Scale *
 FAC Old Time Rubber
 No-Cal Scale

* These events are mass launch events.

You must show proof of scale to get past the 40 point rule in mass launch events.
 All Pioneer Scale models will be flown in the Pioneer event only regardless of size.
 Golden Age Military cannot fly in Golden Age Scale.
 FAC Old Time Rubber will have two official flights each day and the three best flights
 of the four will be used as your total score. Flyoff to break ties.

I wish to make the following advanced reservations for the above contest.

_____ entry fees at \$20.00 each.....\$ _____
 _____ reservations for double occupancy with meals, \$120.00 per person.....\$ _____
 _____ reservations for single occupancy with meals, \$150.00 per person.....\$ _____

Please note; we will be unable to refund cancellations received after June 30, 1993. If
 you plan to share a room with someone, please indicate their name so we can direct the
 University to set up the proper room arrangements. _____

Your Meals at the University will include dinner on Friday July 9th, Breakfast and dinner
 on Saturday July 10th, breakfast and dinner on July 11th and breakfast on July 12th.

Scale judging will be done in the dormitory lounge on Friday July 9th from 1:00 pm untill!
 If you are not staying in the dorms you will have to bring your models to the dorms to be
 judged. As of now we do not know what dormitory we will be in. Should know soon.

BUILD--FLY--WIN.....EFF--AAA--CEEEEEEE!!!!!!!!!!!!